

ORDER NO. KM40104791C1

F11

Service Manual

Telephone Equipment

Caller ID Compatible

**KX-TC1743B / KX-TC1743F / KX-TC1743G / KX-TC1743W /
KX-TC1743PW**

900MHz Digital Cordless Answering System

Black Version

Blue Version

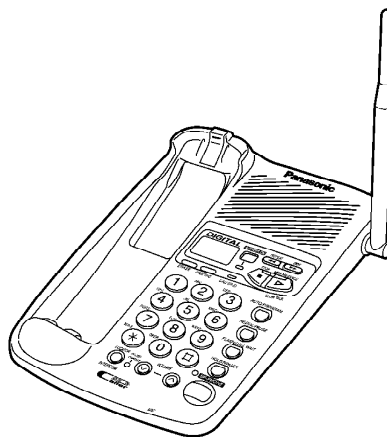
Green Version

White Version

**Pearl White Version
(for U.S.A.)**



(Handset)



(Base Unit)

SPECIFICATIONS

SPECIFICATIONS

	Base Unit	Handset
Power Source:	AC Adaptor (KX-TCA1-G)	Rechargeable Ni-Cd battery
Receiving Frequency:	22 channels within 902.00~928.00 MHz	22 channels within 902.00~928.00 MHz
Receiving Method:	Double super heterodyne	Double super heterodyne
Transmitting Frequency:	22 channels within 902.00~928.00 MHz	22 channels within 902.00~928.00 MHz
Oscillation Method:	PLL synthesizer	PLL synthesizer
Tolerance of OSC Frequency:	4.096 MHz	4.096 MHz
Modulation Method:	TDD-FSK	TDD-FSK
Spread spectrum Method:		
Chip rate:		
ID Code:	28-bit	28-bit
Dial Mode:	Tone (DTMF)/Pulse	Tone (DTMF)/Pulse
Redial:	Up to 32 digits	Up to 32 digits
Speed Dialer:		Up to 48 digits
Power Consumption:		14 days at Standby, 6 hours at Talk
Dimension (H x W x D):	3 11/32" x 7" x 8 1/4" (85 x 178 x 210mm)	1 5/16" x 2 5/32" x 9 7/16" (41 x 55 x 240 mm)
Weight	1.01 lbs. (460 g)	0.49 lbs. (220g) with battery

Design and specifications are subject to change without notice.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

When you mention the serial number, write down all 11 digits. The serial number may be found on the label affixed to the bottom of the unit.

FOR SERVICE TECHNICIANS

ICs and LSIs are vulnerable to static electricity.

When replacing, the following precautions will help prevent recurring malfunctions.

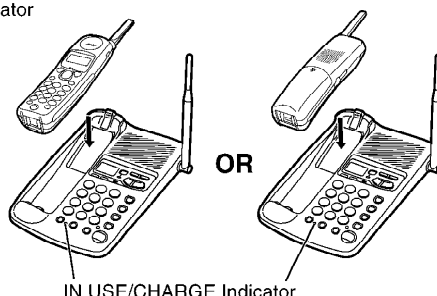
1. Cover the plastic parts boxes with aluminum foil.
2. Ground the soldering irons.
3. Use a conductive mat on the work table.
4. Do not grasp IC or LSI pins with bare fingers.

1. STANDARD BATTERY LIFE

Battery Charge

Place the handset on the base unit and charge for about **15 hours** before initial use.

- The IN USE/CHARGE indicator lights.



Battery strength

You can check the battery strength on the display while the handset is on the base unit, while it is in use (making/answering a call etc.), or after viewing the Caller List, or directory items, programming, etc. The battery strength will remain on the display for a few seconds after using the handset, then the display will return to the standby mode.

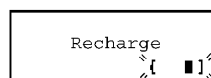
The battery strength is as shown in the chart below.

Display prompt	Battery strength
{■■■■}	Fully charged
{■■■}	Medium
{■■}	Low
{■■} (flashing)	Needs to be recharged.

Recharge

Recharge the battery when:

- "Recharge" is displayed,
- "{■■}" flashes on the handset display, or
- The handset beeps intermittently while it is in use.



- If you DO NOT recharge the handset battery for more than 15 minutes, the display will keep indicating "Recharge" and/or "{■■}" will continue to flash.

Battery information

After your Panasonic battery is fully charged;

Operation	Approx, battery life
While in use (TALK)	Up to about 6 hours
While not in use (Standby)	Up to about 14 days

- Battery life may be shortened depending on usage conditions, such as viewing the Caller ID Caller List, and ambient temperature.
- **Clean the handset and the base unit charge contacts with a soft, dry cloth. Clean if the unit is subject to grease, dust or high humidity.** Otherwise the battery may not charge properly.
- If the battery is fully charged, you do not have to place the handset on the base unit until "Recharge battery" is displayed and/or "{■■}" flashes. This will maximize the battery life.
- The battery cannot be overcharged.

Standby mode

Handset (While off the base unit)

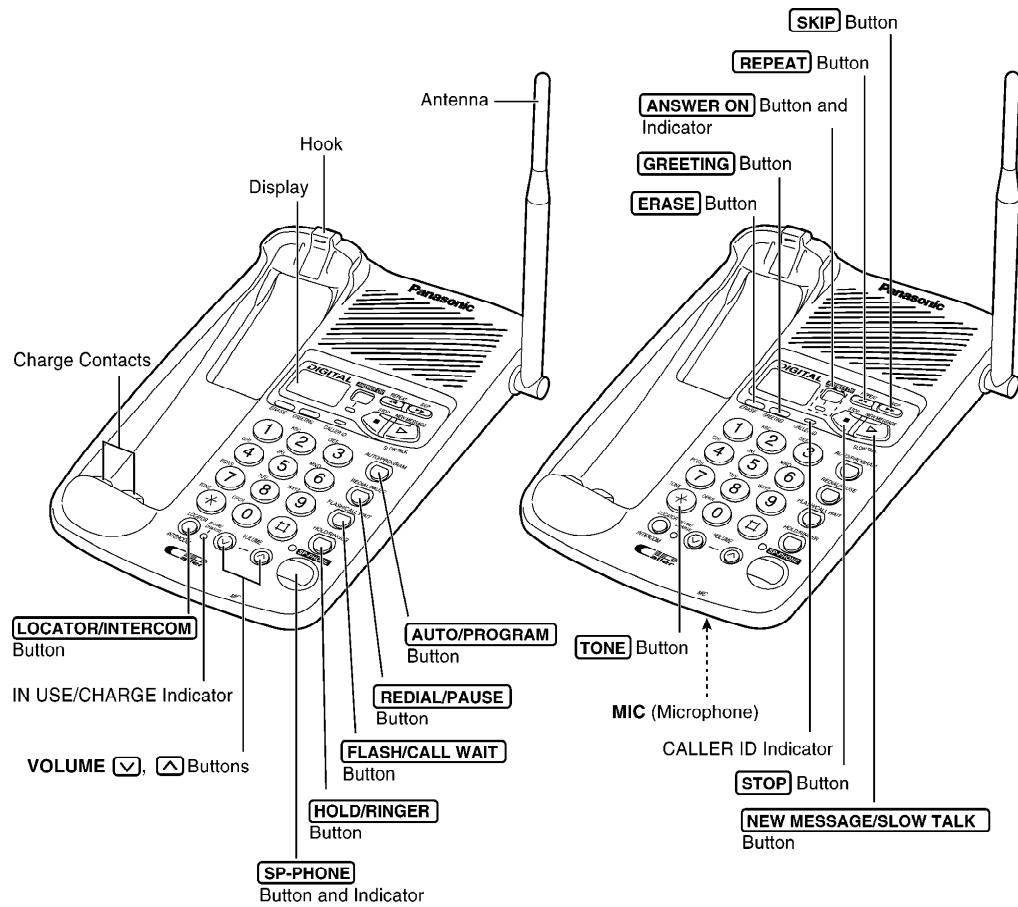
The handset goes into the standby mode after you finish using the handset (making/answering a call, viewing the Caller List or directory list etc.). The display is blank, but the handset can receive calls. The battery life is conserved in this mode.

Base Unit

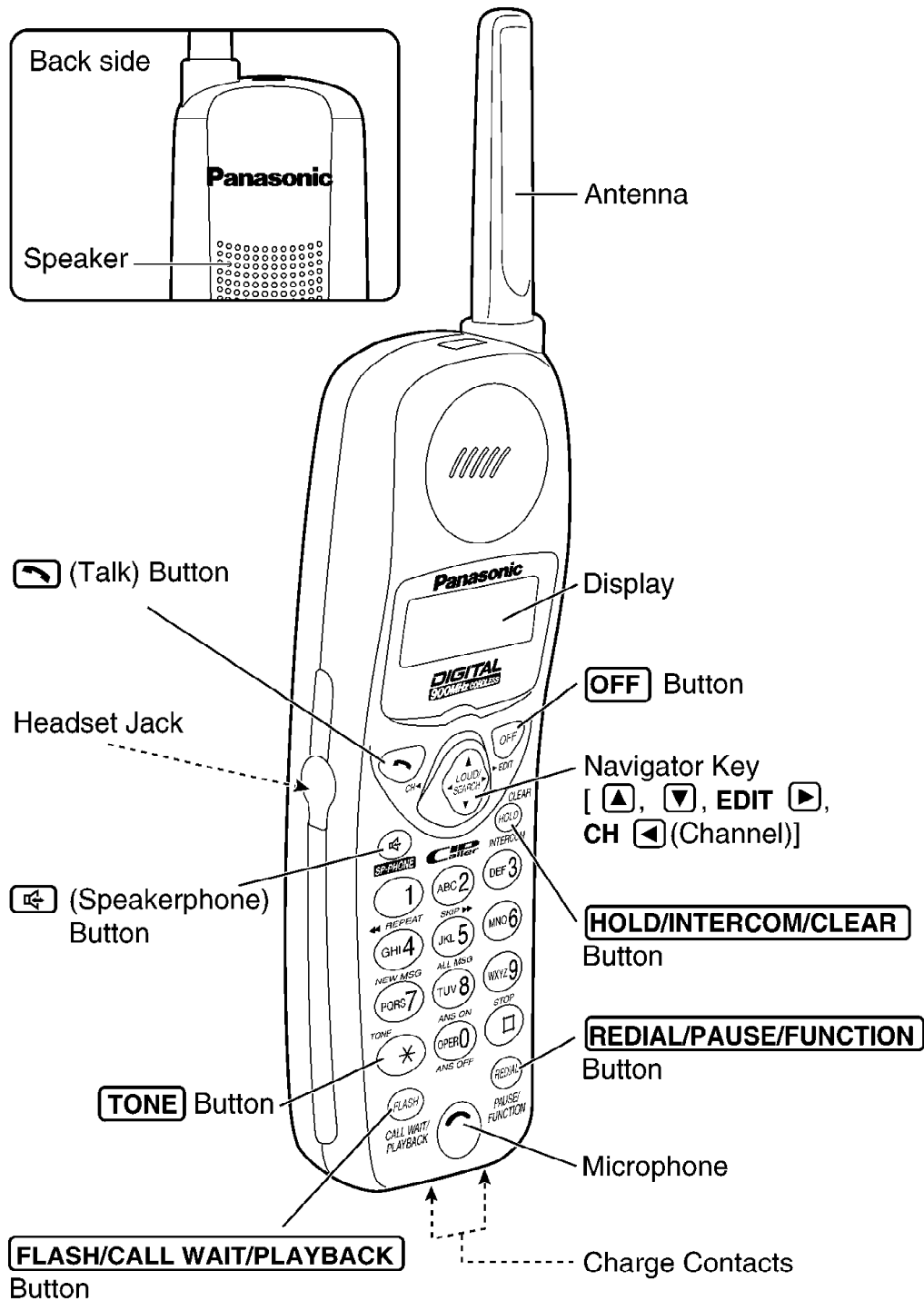
The base unit goes into the standby mode after you finish using the base unit (making/answering a call, using the intercom, using the answering system etc.). Programming and storing phone numbers are possible **only when** the base unit is in the standby mode.

2. LOCATION OF CONTROLS

2.1. Base unit



2.2. Handset



3. DISPLAYS

Both the handset and the base unit show you instructions and information on the displays. These display prompts are shown below.

3.1. Handset

No items stored

The Caller List is empty or there are no stored items in the directory.

Recharge
[Battery icon]

The battery needs to be charged. Place the handset on the base unit to charge the battery.

12 new calls
[Battery icon]

The display shows the number of new calls and the battery strength while the handset is on the base unit.

12 new calls
▲ ▶=Directory

The display shows the number of new calls when ▼ or ▲ is pressed while the handset is off the base unit.

To search from the most recent call, press ▼.

To search from the oldest call, press ▲.

To go to the directory list, press **EDIT** [Right arrow] (Directory key).

"Ringer off"
[Battery icon]

When the ringer volume is set to OFF, "Ringer off" will flash for about 45 seconds before the unit returns to the standby mode.

ROBINSON, TINA
1-000-222-3333

When a call is received, the display shows the caller's name and number after the first ring.

Talk
01-06-35 [Battery icon]

During a conversation, the display shows the length of the call (ex. 1 hour, 6 minutes and 35 seconds). The battery strength is also displayed.

No link to base.
Place on cradle
and try again.

The handset has lost communication with the base unit. Place the handset on the base unit and try again.

SMITH, JACK
1-222-333-4444
11:20A JAN12 x3

This is a name from the Caller List.











The display shows:

—the caller's name,

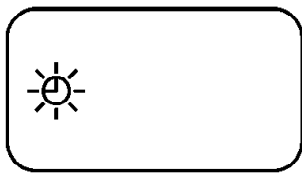
—the caller's number,

—the time and date of the last call (ex. Jan. 12, 11:20 AM), and

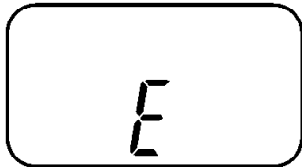
—the number of times called (ex. 3 times).

Ann 1234567890	This is a name from the directory. The stored name and phone number are displayed.
Directory full	When trying to store an item or Caller List information in the directory, the directory memory is full.
Save error	During a programming procedure, the handset has lost communication with the base unit. Move closer to the base unit.
Intercom hold 00-00-07 {■■■■}	An outside call has been put on hold by the handset in the intercom mode. To release the hold, press  or  .
BROWN, NANCY 1-000-222-3333 ----Waiting-----	A second call is received during a conversation.
Please lift up and try again.	 ,  , CH  or EDIT  was pressed while the handset was on the base unit. Lift the handset and press the button again.
Not available	 ,  , CH  or EDIT  was pressed while the base unit was not in the standby mode.
Remote operation {■■■■}	The handset is operating the answering system remotely.

3.2. Base unit



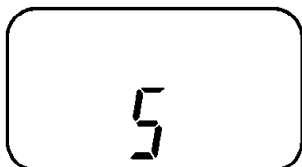
The clock needs adjusting.



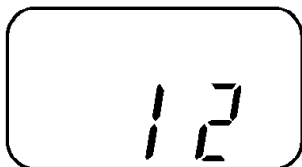
Your greeting message was not recorded correctly. Record it again.



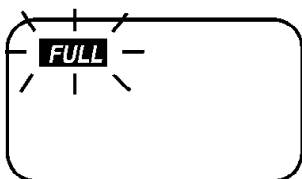
The unit is in the answering system programming mode.



The speaker volume level is set to "5".
You can select:
—9 levels (0-8) are available while using the answering system.
—8 levels (1-8) are available while using the speakerphone and the intercom.



12 messages have been recorded.



Memory is full. Erase some, or all, of the messages.



The ringer volume is set to OFF.

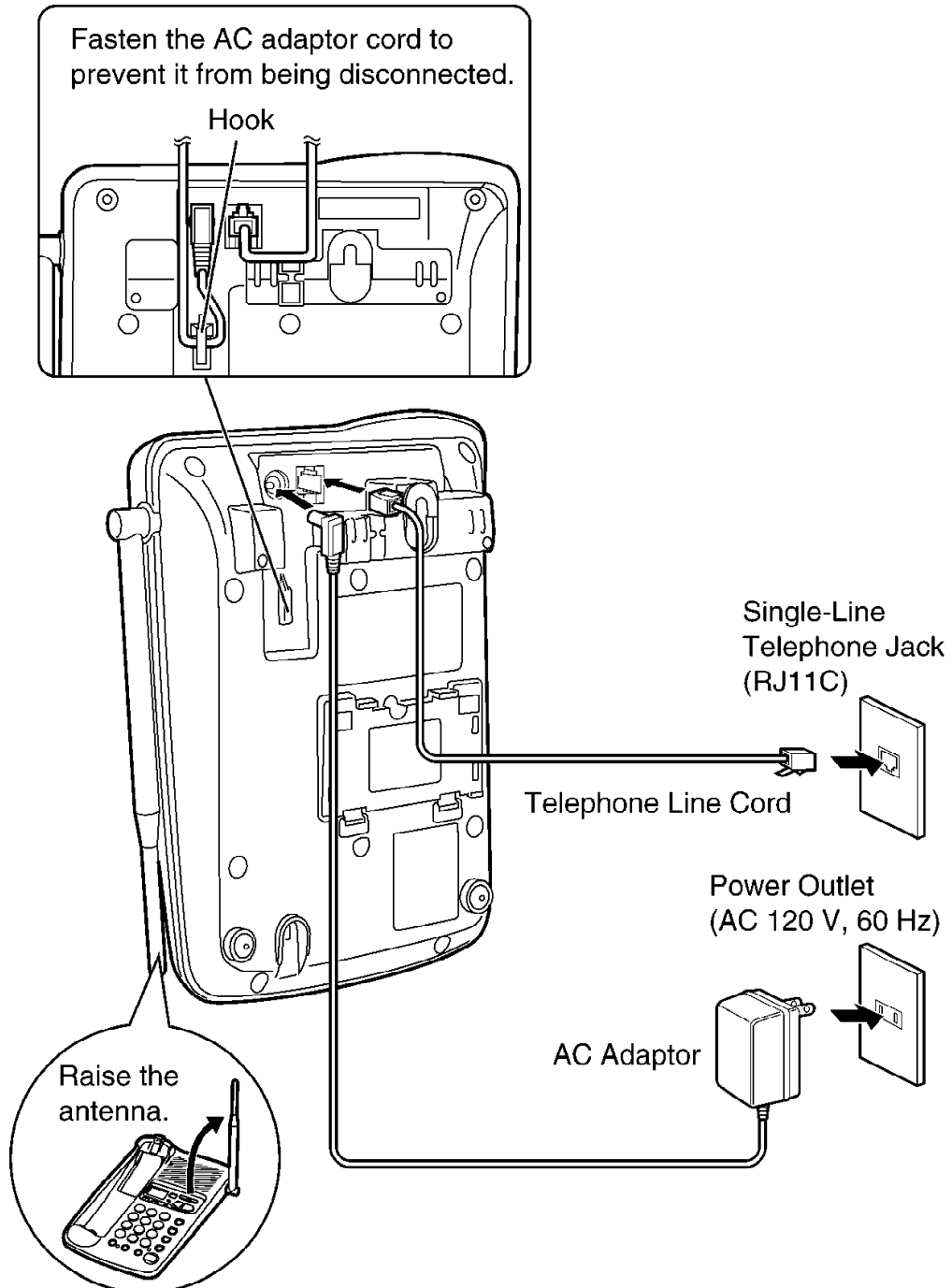


" " " " " " " " " "



The recording time is set to "Greeting only".
(The display is blank.)

4. CONNECTIONS



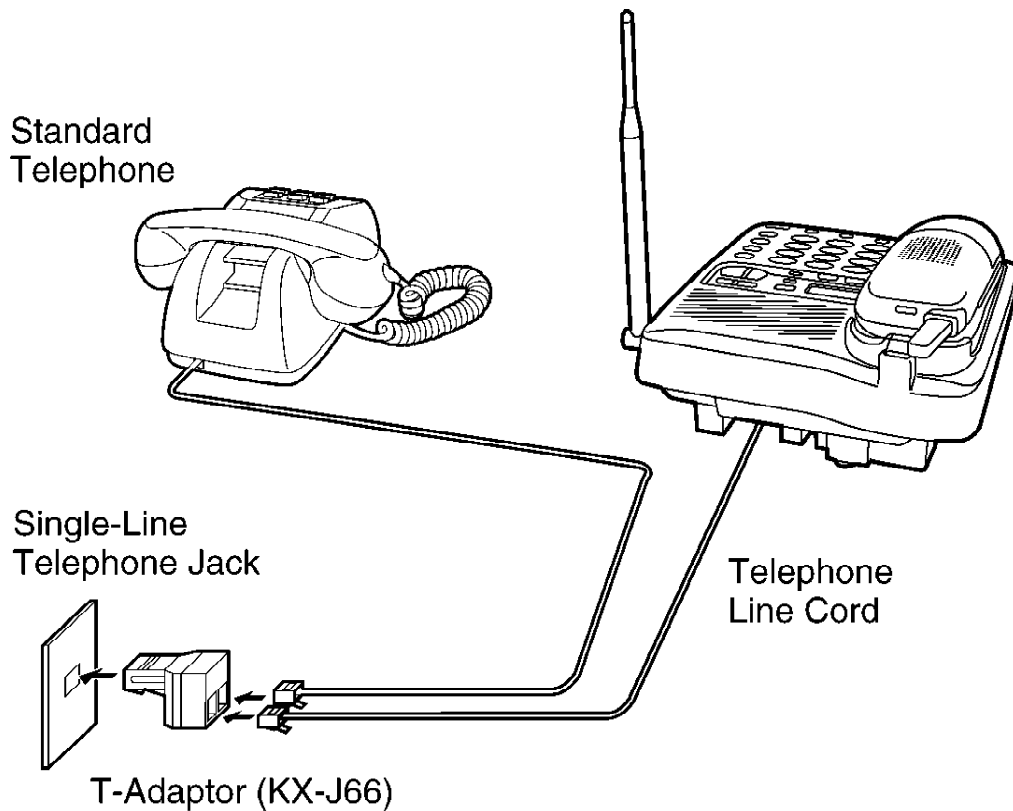
Note:

- USE ONLY WITH Panasonic AC ADAPTOR KX-TCA1-G.

- The AC adaptor must remain connected at all times. (It is normal for the adaptor to feel warm during use.)
- If your unit is connected to a PBX which does not support Caller ID services, you cannot access those services.

4.1. Adding Another Phone

This unit will not function during a power failure. To connect a standard telephone on the same line, use the Panasonic T-adaptor KX-J66.

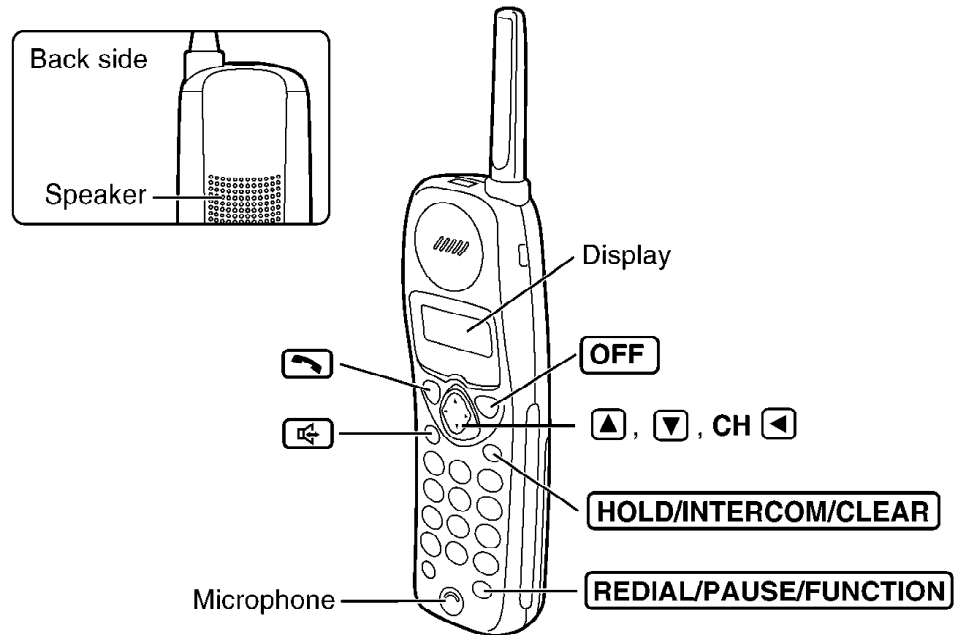


5. OPERATION

5.1. Making Calls

5.1.1. With the Handset

To have a hands-free conversation, connect an optional headset to the handset.



1 Press .

Talk

2 Dial a phone number.

- The dialed number is displayed.
- After a few seconds, the display will show the length of the call and the battery strength.

Talk
1112222


Talk
00-00-00 [■■■■]

3 To hang up, press **OFF** or place the handset on the base unit.

Off
00-01-08 [■■■■]

- If "No link to base Place on cradle and try again." is displayed and an alarm tone sounds in step 1, move closer to the base unit or place the handset on the base unit, and try again.

To have a hands-free phone conversation (Using Digital Duplex Speakerphone)

- 1 Press .

SP-phone
- 2 Dial a phone number.
 - The dialed number is displayed.
 - After a few seconds, the display will show the length of the call and the battery strength.

SP-phone
1112222






SP-phone
00-00-00 [||||]
- 3 When the other party answers, talk into the microphone.
- 4 To hang up, press **OFF** or place the handset on the base unit.

Off
00-01-08 [||||]


- If "No link to base Place on cradle and try again." is displayed and an alarm tone sounds in step 1, move closer to the base unit or place the handset on the base unit, and try again.

Hands-free Digital Duplex Speakerphone

For best performance, please note the following:

- Talk alternately with the caller in a quiet room.
- If the other party has difficulty hearing you, press  to decrease the speaker volume.
- If the other party's voice from the speaker cuts in/out during a conversation, press  to decrease the speaker volume.
- While talking using , you can switch to the hands-free phone conversation by pressing . To switch back to the receiver, press .

If noise interferes with the conversation

Press **CH**  to select a clearer channel in the talk, speakerphone, intercom or remote operation mode, or move closer to the base unit.

To redial the last number dialed on the handset

Press  or  ➔ **REDIAL/PAUSE/FUNCTION**.

To dial after confirming the entered number

- 1 Dial a phone number.
 - If you misdial, press **HOLD/INTERCOM/CLEAR**. One digit is erased from the right. Dial the correct phone number.

3334444

- 2 Press .
OR
To have a hands-free phone conversation, press , and when the other party answers, talk into the microphone.
 - After a few seconds, the display will show the length of the call and the battery strength.

Talk
3334444

Talk
00-00-00 [■■■■]

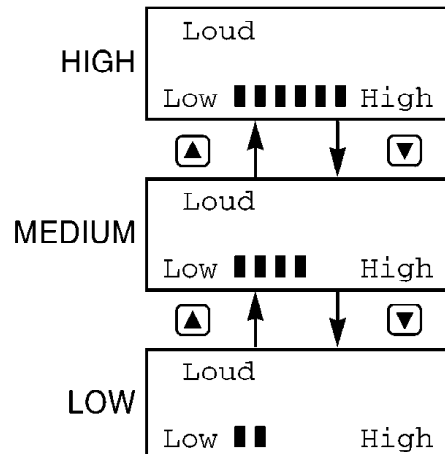
- 3 To hang up, press **OFF** or place the handset on the base unit.

To adjust the receiver volume (HIGH, MEDIUM or LOW) or speaker volume (6 levels) while talking

Press or while talking.

While using

- Each time you press or , the volume level will change from MEDIUM (preset) to HIGH or LOW.
- The display will return to the length of the call.
- When you replace the battery, the selected receiver volume setting will return to the factory set (MEDIUM). Reprogram if necessary.



While using

- Each time you press or , the volume level will change from level 1 to 6. Your phone comes from the factory set to level 3.

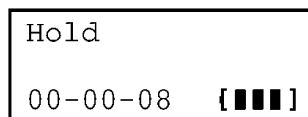
Ex. Speaker volume:
level 6

Loud
Low ■■■■■■ High



To put a call on hold

Press **HOLD/INTERCOM/CLEAR**.

- "Hold" is displayed.
- If you do not press any key more than 6 minutes, an alarm tone will sound.
- If you do not press any key more than 10 minutes after holding a call, a line will be disconnected.



To release the hold

From the handset, press  or .

From the base unit, press **SP-PHONE**.

- If another phone is connected on the same line, you can also release the hold by lifting its handset.

Backlit LCD display

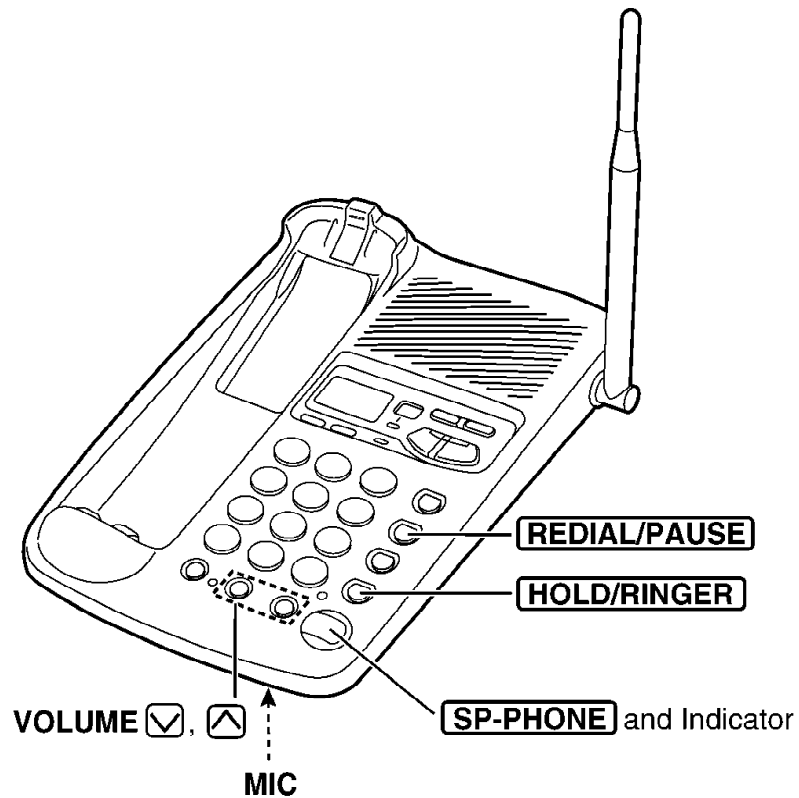
The lighted handset display will stay on for a few seconds after pressing a handset button, lifting the handset off the base unit, hanging up a call, leaving the programming mode or ending the intercom.



Lighted handset keypad

The handset dialing buttons will light when you press a button or lift the handset off the base unit, and flash when a call is received. The lights will go out a few seconds after pressing a button, lifting the handset, answering a call, hanging up a call, leaving the programming mode or ending the intercom.

5.1.2. With the Base Unit



(Digital Duplex Speakerphone)



- 1 Press **SP-PHONE**.
 - The SP-PHONE indicator lights.
 - 2 Dial a telephone number.
 - 3 When the other party answers, talk into the **MIC** (microphone).
 - 4 To hang up, press **SP-PHONE**.
 - The indicator light goes out.
- To switch to the handset while using the speakerphone:
 - If the handset is off the base unit, press  or .
 - If on the base unit, just lift up.
 - During a call using the handset, the call can be switched to the base unit speakerphone by pressing **SP-PHONE** on the base unit.

Hands-free Digital Duplex Speakerphone

For best performance, please note the following:

- Talk alternately with the caller in a quiet room.
- If the other party has difficulty hearing you, press **VOLUME**  to decrease the speaker volume.
- If the other party's voice from the speaker cuts in/out during a conversation, press **VOLUME**  to decrease the speaker volume.

To adjust the speaker volume (8 levels) while talking

To increase, press **VOLUME** .

To decrease, press **VOLUME** .

To redial the last number dialed on the base unit

Press **SP-PHONE** ➡ **REDIAL/PAUSE**.



To put a call on hold

Press **HOLD/RINGER**.

- The SP-PHONE indicator flashes.



To release the hold



From the base unit, press **SP-PHONE**.

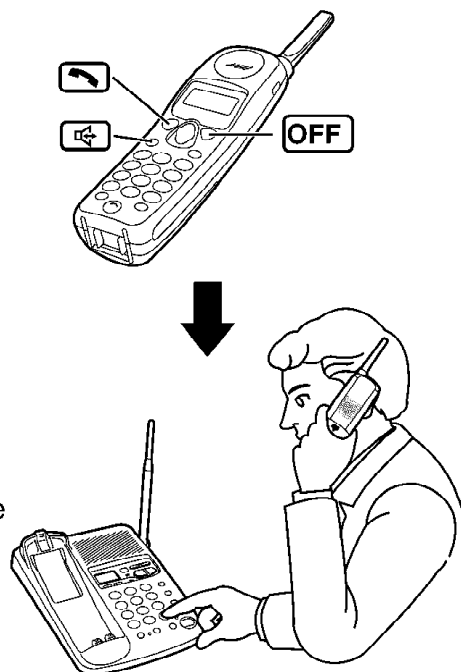
From the handset, press  or  lift the handset off the base unit.



- If another phone is connected on the same line, you can also release the hold by lifting its handset.

Simultaneous Keypad Dialing

You can use the base unit like a standard telephone. After pressing  or  to make a call with the handset near the base unit, you can also dial using the base unit keypad.



- 1 Handset:
Press  or .
- 2 Base unit:
Dial a telephone number while hearing a dial tone on the handset.
 - When the other party answers, talk using the handset.
- 3 Handset:
To hang up, press **OFF** or place the handset on the base unit.



Simultaneous Keypad Dialing is only possible after pressing  or .

Useful information

You can enter numbers using the base unit keypad during a call with the handset. For example, to access an answering service, electronic banking service, etc.


1. Handset:
Press  or .
2. Handset:
Dial a telephone number.
 - You can also dial with base unit keypad.
3. Base unit:
Enter the required numbers while listening to the pre-recorded instructions.
4. Handset:
To hang up, press **OFF** or place the handset on the base unit.





5.2. Answering Calls

When a call is received, the unit rings and the **CALLER ID** indicator on the base unit flashes


quickly. If you subscribe to a Caller ID service, the calling party information will be displayed after the first ring. In order to view the Caller ID information, please wait until the second ring to answer a call.

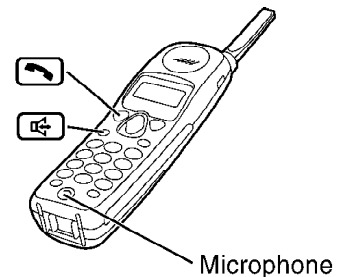
5.2.1. With the Handset

Lift the handset off the base unit;
Press .



- You can also answer a call by pressing any dialing button  to ,  or  (—Any Key Talk).

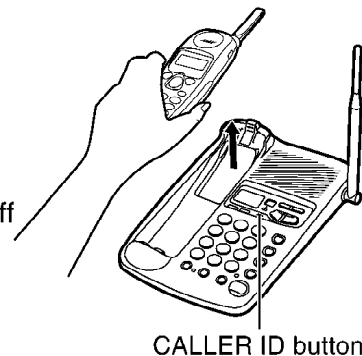
OR

Press , and when the other party answers, talk into the microphone.



Auto Talk

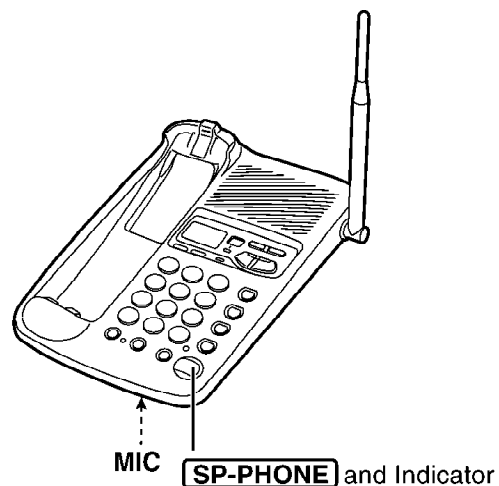
If you set the Auto Talk feature to ON, you can answer a call by lifting the handset off the base unit without pressing  or .



When an optional headset is connected, make sure to use the headset to talk with the caller. If you want to have a normal cordless phone conversation, disconnect the headset.

5.2.2. With the Base Unit

- 1 Press **SP-PHONE**.
 - The SP-PHONE indicator lights.
- 2 Talk into the **MIC**.
- 3 To hang up, press **SP-PHONE**.
 - The indicator light goes out.



5.3. Automatic Answering Operation

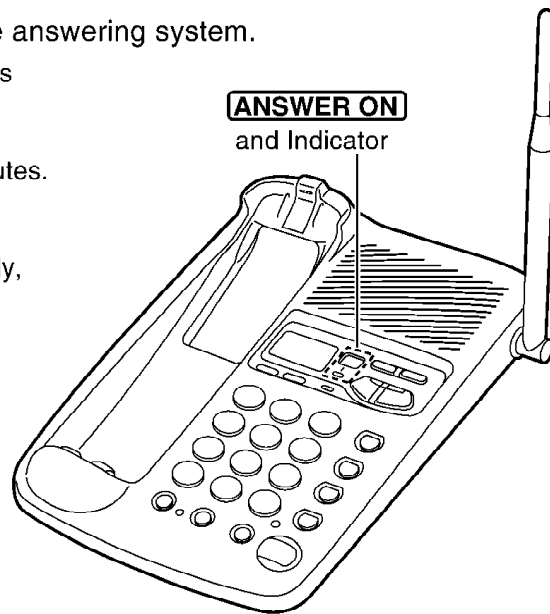
When the unit answers a call, a greeting message is played and the caller's message is recorded.

- The total recording time (including greeting message) is **about 15 minutes**. If messages are recorded in noisy rooms, the time may be shortened by up to 3 minutes.
- A maximum of 64 messages (including greeting message) can be recorded.

5.3.1. Setting the Unit to Answer Calls

Press **ANSWER ON** to turn on the answering system.

- The indicator lights and "Answer set" is heard.
- The unit will announce the remaining recording time if it is less than 5 minutes.
- If you hear "Memory full", "**FULL**" is displayed on the base unit and the ANSWER ON indicator flashes rapidly, erase some, or all, of the messages.



- If you do not want the unit to answer calls, press **ANSWER ON** again to turn off the answering system. The indicator light goes out and "Answer off" is heard.
- You can also turn on the answering system remotely using any other phone.

Monitoring incoming calls

While a call is being recorded, you can monitor it through the speaker.

To answer the call with the speakerphone, press **SP-PHONE**.

For the handset, press  or . The unit stops recording.

5.4. Listening to Messages

You can see the total number of recorded messages on the base unit display. If the ANSWER ON indicator flashes, new messages have been recorded.

Listening to only new messages

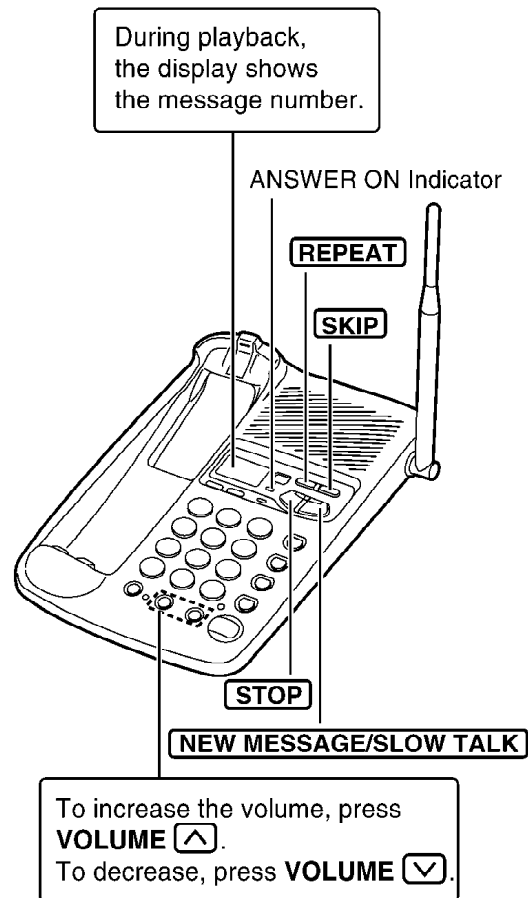
Press **NEW MESSAGE/SLOW TALK** briefly.

- The unit announces the number of new messages and plays them back.

Listening to all recorded messages

Press and hold **NEW MESSAGE/SLOW TALK** until playback starts.

- At the end of the last message, "End of final message" is heard. The unit will announce the remaining recording time if it is less than 5 minutes.



Slow Talk Message Playback

For easier listening of recorded messages, you can slow down the playback speed by pressing **NEW MESSAGE/SLOW TALK** during playback. Each time you press the button, the playback speed will change to slow/normal.

Press **NEW MESSAGE/SLOW TALK** during playback.

- The playback speed will slow down by 30%.
- To return to the normal speed, press **NEW MESSAGE/SLOW TALK** again during playback.
- The playback speed will return to normal after playing back all messages.



5.4.1. During playback

To repeat message	Press REPEAT briefly. • If you press within 5 seconds of playback, the previous message will be played.
To skip message	Press SKIP briefly.
To stop operation	Press STOP . • To resume playback, press NEW MESSAGE/SLOW TALK . • If you do not press any button for 60 seconds or if you press STOP again, the unit will return to the standby mode.

For Caller ID service users

- During playback, when the handset is on the base unit, the handset display will show the name and/or number of the caller whose message is being played.

To call back the displayed number:

During playback, lift the handset and press  or  within 10 seconds.

—The unit stops playback and automatically dials the displayed phone number.

- After listening to new incoming messages, “✓” will be added to the call entries in the Caller ID Caller List.

FLASH Button

Pressing **FLASH/CALL WAIT/PLAYBACK** or **FLASH/CALL WAIT** allows you to use special features of your host PBX such as transferring an extension call or accessing special telephone services (optional) such as call waiting.

Selecting the flash time

The flash time depends on your telephone exchange or host PBX. You can select the following flash times: "700, 600, 400, 300, 250, 110, 100 or 90 ms (milliseconds)". Your phone comes from the factory set to "700 ms".

Make sure the unit is in the standby mode.

1 Press **REDIAL/PAUSE/FUNCTION**.

2 Press **▼** or **▲** repeatedly until the arrow points to "Program".

Ringer volume
▶Program
Save directory

3 Press **EDIT** **▶**.

4 Press **▼** or **▲** repeatedly until the arrow points to "Set flash time".

LCD contrast
▶Set flash time
Set line mode

5 Press **EDIT** **▶**.

Flash time
:700ms
▼▲ ▶=Save

6 Press **▼** or **▲** repeatedly until the desired time is displayed.

7 Press **EDIT** **▶** (Save key).

- A beep sounds.

- To return to the standby mode, press **OFF**.

Flash time
:110ms

- You can exit the programming mode any time by pressing **OFF**.
- If you are connected via a PBX, a longer flash time may be necessary to use PBX functions (transferring a call etc.). Consult your PBX supplier for the correct setting.

6. DISASSEMBLY INSTRUCTIONS

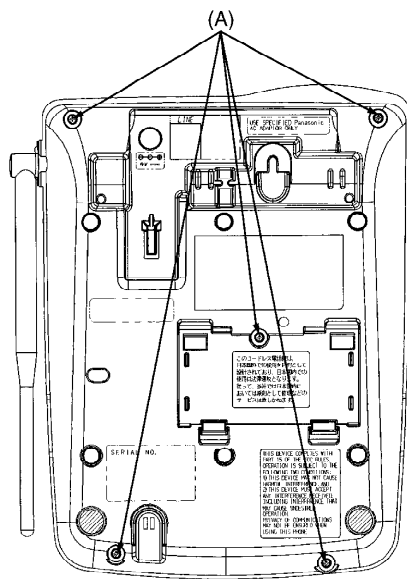
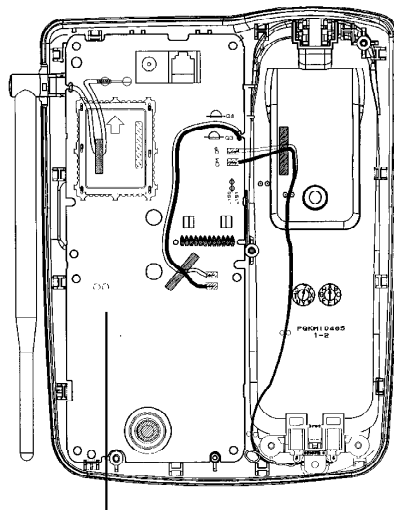


Fig. 1



Remove the P. C. Board

Fig. 2

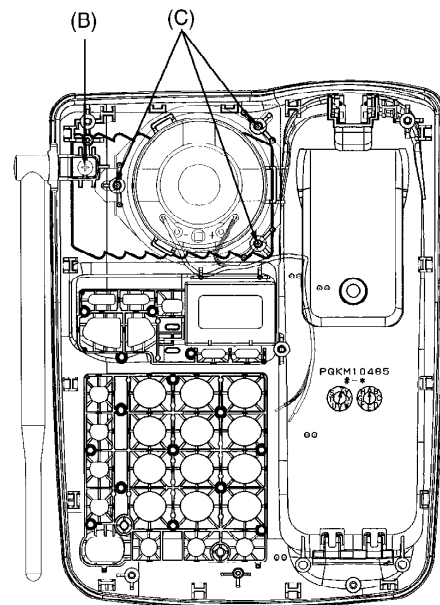


Fig. 3

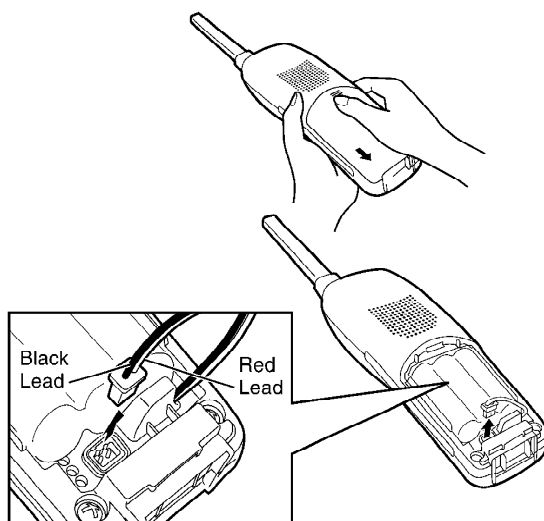


Fig. 4

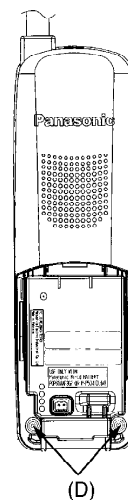


Fig. 5

Note: When opening the upper cabinet, be careful of the speaker lead wire.

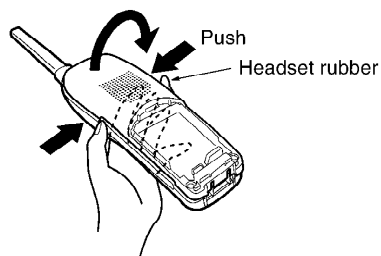


Fig. 6

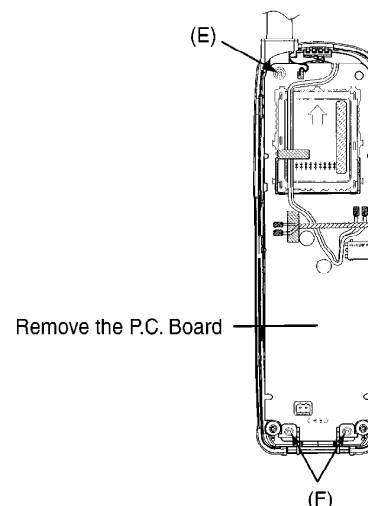
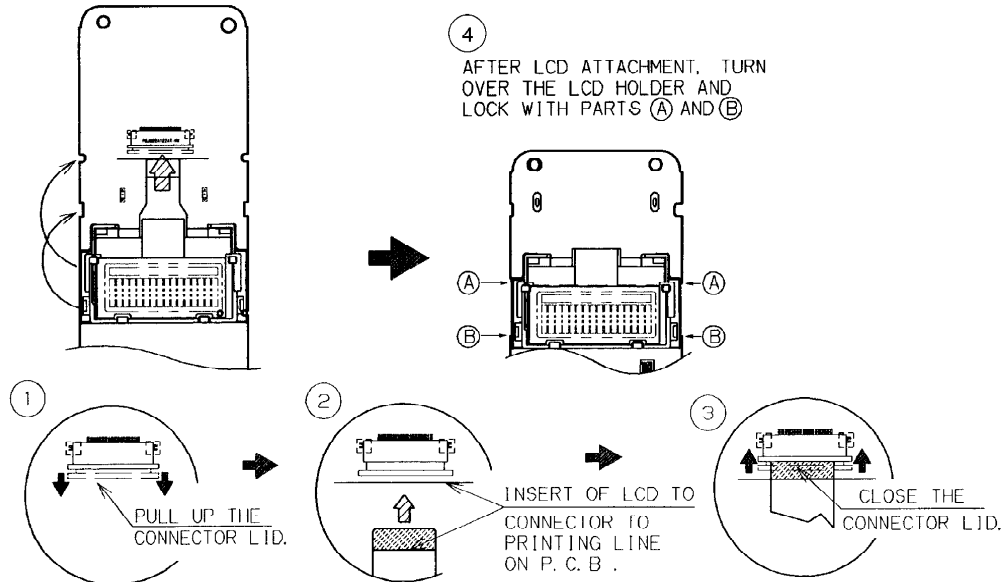


Fig. 7

Shown in Fig.-	To Remove	Remove
1	Lower Cabinet	Screws (2.6 X 12).....(A) X 5
2	Main P.C. Board	Remove the P.C. Board
3	Antenna	Screw (2.6 X 12).....(B) X 1
	Speaker	Screws (3 X 8).....(C) X 3
4	Battery Cover	Remove the Battery Cover
5	Rear Cabinet	Screws (2.6 X 12).....(D) X 2
6	Rear Cabinet	Remove the Rear Cabinet
7	Main P.C. Board	Screw (2.6 x 12).....(E) x 1
		Screws (2.6 x 10).....(F) x 2
		Remove the lead
		Remove the P.C. Board

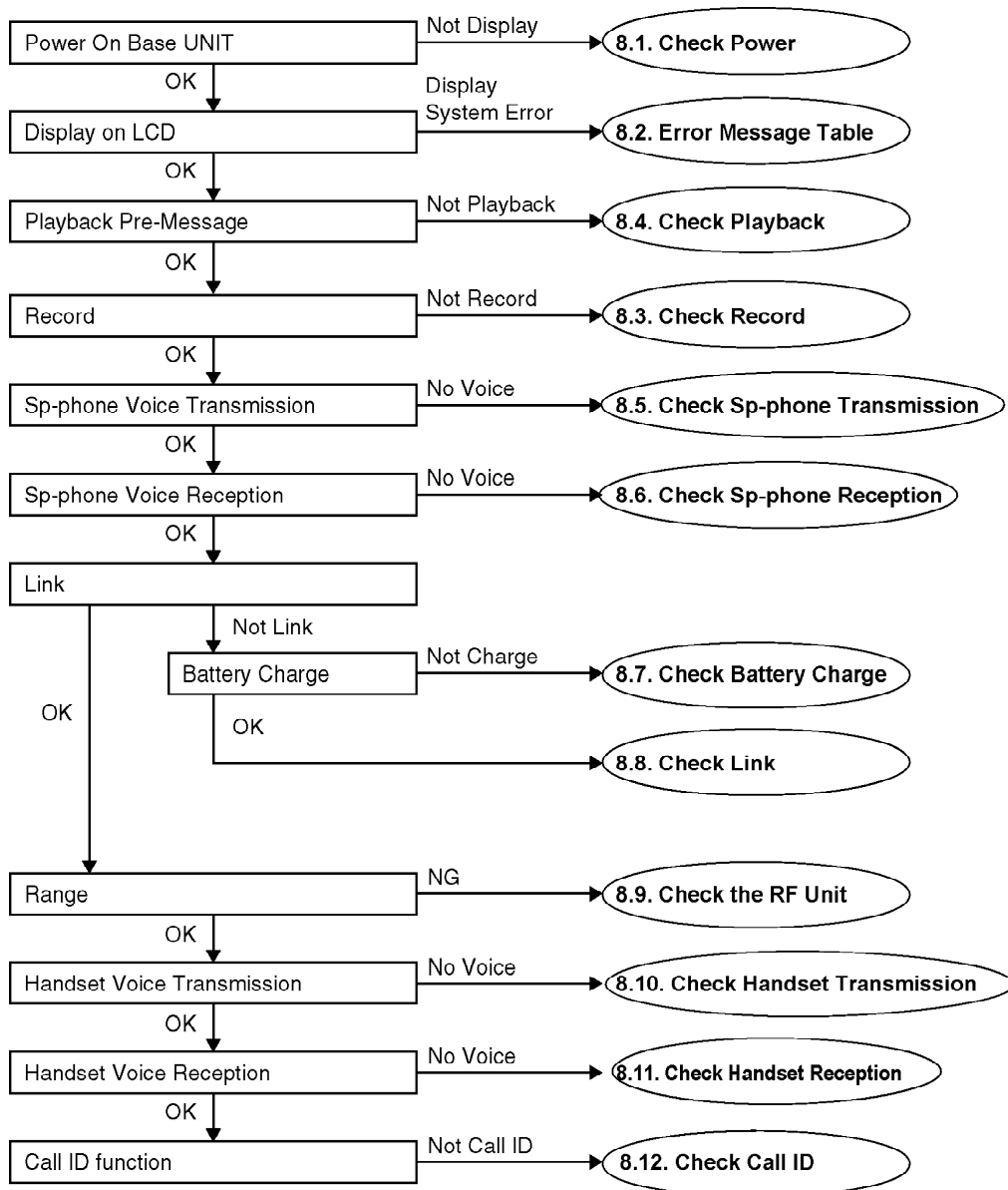
7. ASSEMBLY INSTRUCTIONS

7.1. Assembly the LCD to P.C. Board (Handset)



8. TROUBLESHOOTING GUIDE

MAIN



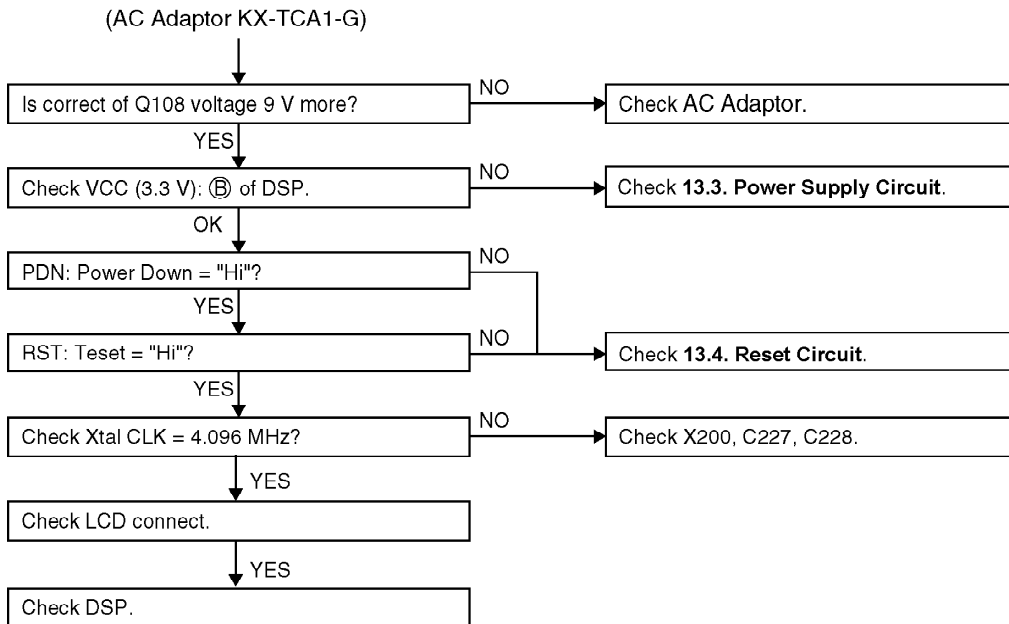
Cross Reference:

- [Check Power \(\)](#)
- [Error Message Table \(\)](#)
- [Check Record \(\)](#)
- [Check Playback \(\)](#)
- [Check Sp-phone Transmission \(\)](#)
- [Check Sp-phone Reception \(\)](#)
- [Check Battery Charge \(\)](#)
- [Check Link \(\)](#)
- [Check the RF Unit \(\)](#)
- [Check Handset Transmission \(\)](#)
- [Check Handset Reception \(\)](#)
- [Check Call ID \(\)](#)

8.1. Check Power

BASE UNIT

Is the AC Adaptor inserted into 120V outlet?



Cross Reference:

[Power Supply Circuit \(\)](#)

[Reset Circuit \(\)](#)

NOTE:

Flash Memory is IC300.

DSP is IC201.

8.2. Error Message Table

Display	Symptom	Remedy
E 1	The initialization was tried, but it could not be done.	1. Check the peripheral circuit of Flash Memory visually. 2. Confirm that the voltage is added to the power supply pin. If no voltage is detected, replace the Flash Memory because it might be defect. 3. Solder the Flash Memory again.
E 3 E 9	When the adjustment data was checked, an error was detected. (The adjustment data may not be written.)	
E 7	The defect of synthesized voice was detected. (The synthesized voice may not be written.)	
E 2	The defect of Flash Memory was detected.	When Flash Memory has the fatal detect, replace Flash Memory. This error hardly occurs.
E 4	The defect of DSP was detected. (The chip in DSP may have a defect.)	1. Confirm Pins of DSP or resoldering. 2. Confirm the oscillation frequency of DSP. If no frequency is found, replace DSP because it might be defect.
E 5 E 6	The defect of DSP was detected.	Replace DSP.

NOTE:

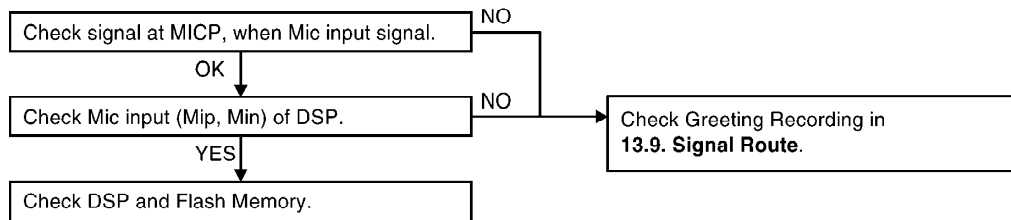
Flash Memory is IC300.

DSP is IC201.

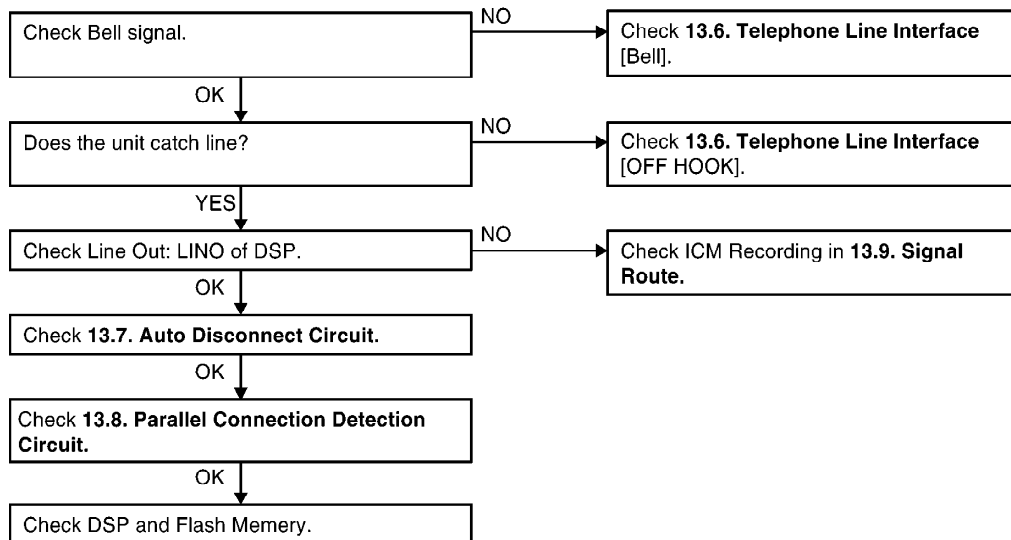
8.3. Check Record

BASE UNIT

Not record Greeting Message



Not record Incoming Message



Cross Reference:

Telephone Line Interface ()

Auto Disconnect Circuit ()

Parallel Connection Detect Circuit ()

Signal Route ()

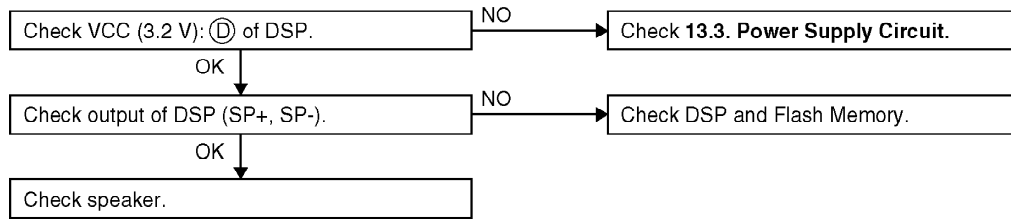
NOTE:

Flash Memory is IC300.

DSP is IC201.

8.4. Check Playback

BASE UNIT



Cross Reference:

[Power Supply Circuit](#) ()

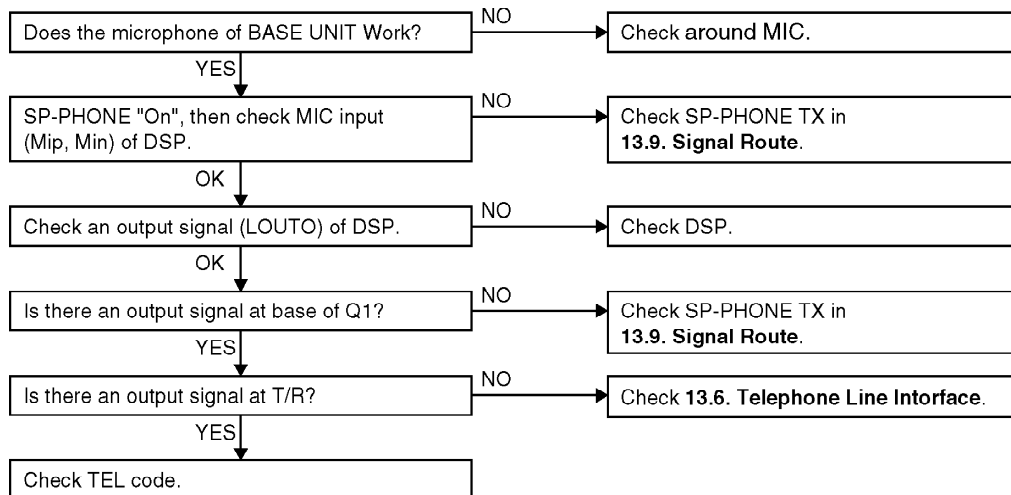
NOTE:

Flash Memory is IC300.

DSP is IC201.

8.5. Check Sp-phone Transmission

BASE UNIT



Cross Reference:

[Telephone Line Interface](#) ()

[Signal Route](#) ()

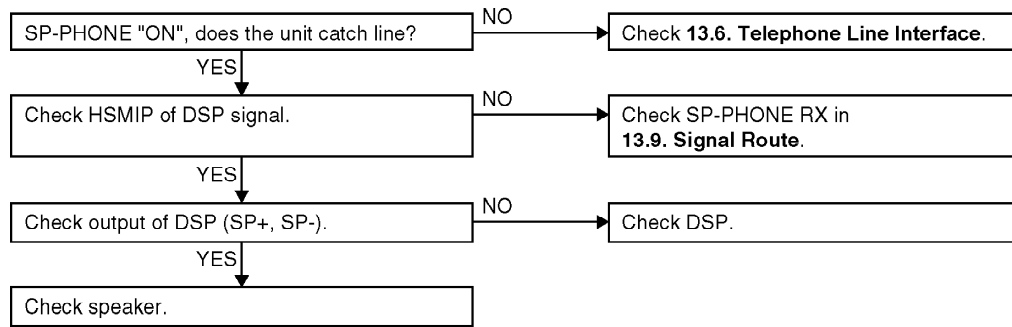
NOTE:

Flash Memory is IC300.

DSP is IC201.

8.6. Check Sp-phone Reception

BASE UNIT



Cross Reference:

[Telephone Line Interface \(\)](#)

[Signal Route \(\)](#)

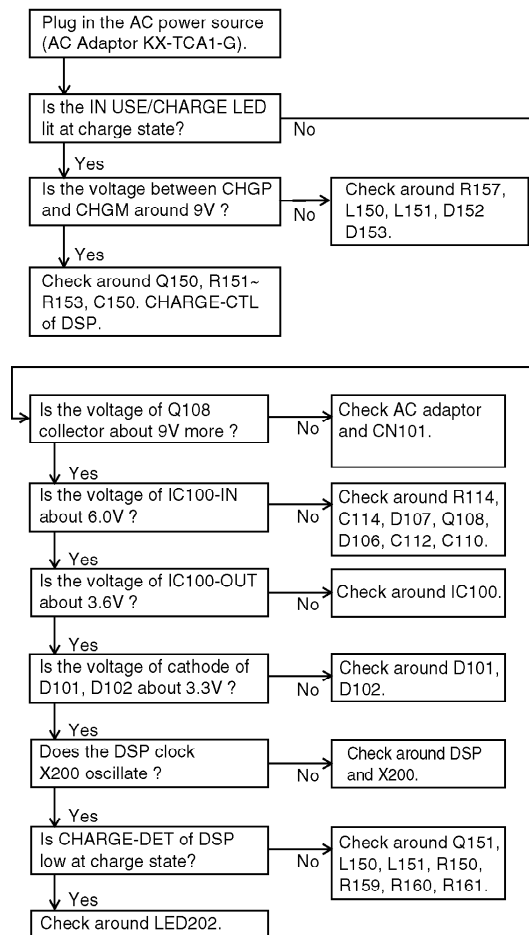
NOTE:

Flash Memory is IC300.

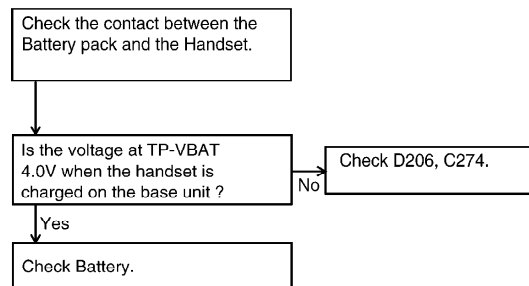
DSP is IC201.

8.7. Check Battery Charge

BASE UNIT

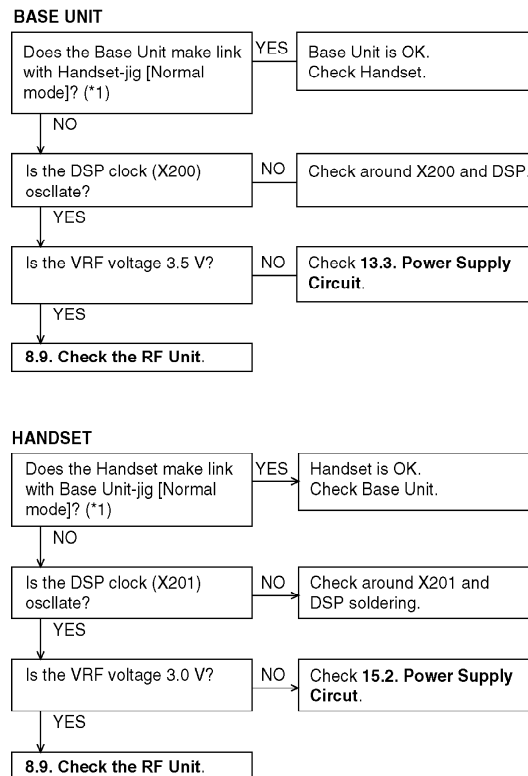


HANDSET



NOTE:
Flash Memory is IC300.
DSP is IC201.

8.8. Check Link



(*1) Refer to [Finding out the Defective Unit \(\)](#).

Cross Reference:

[Check the RF Unit \(\)](#)

[Power Supply Circuit \(\)](#)

[Power Supply Circuit \(\)](#)

NOTE:

Flash Memory is IC300.

DSP is IC201.

8.9. Check the RF Unit

8.9.1. Finding out the Defective Unit


Prepare HS JIG (Handset-jig) and BS JIG (Base Unit-jig) 2). Place the HS JIG on the cradle of the base unit for checking, then confirm that they are linked. Place the handset for checking on the cradle of the BS JIG, then confirm that they are linked. How to confirm the link is as follows; press the TALK button and confirm that the LEDs of the base unit is turned ON.


8.9.2. Check Items

8.9.2.1. Handset-jig (HS JIG) for Base Unit

The handset unit jig also uses two modes: TEST LOW mode and NORMAL POWER mode.

(1) NORMAL POWER mode (Stand-By). In this mode the LCD will remain blank.

(2) TEST LOW mode. Place the portable unit on the base unit while pushing **FLASH** and  key at the same time within 5 seconds after Power supply the portable unit. Refer to fixation

CH table, figure 1 for the  key. This test simulates the handset is at very large distance from the base unit and the TX signal from handset to base is very small.

Procedure: First place handset jig on base under test to charge (exchange security code); press CLEAR and then TALK to operate. The LCD will show TALK. This means that the base unit sensitivity is OK.

* HS JIG becomes [NORMAL POWER] mode immediately after the power supply turning on.

NOTES:

- 1) If when setting the handset to TEST LOW mode, if handset beeps 3 times and the LCD shows "No link to base. Place on cradle and try again", press 2, 5, 8, 0 simultaneously and then disconnect battery. Re-install battery, place unit on cradle to get security codes and tries again.
- 2) Only KX-TC1743 with marks HS JIG/BS JIG can be used for troubleshooting. However, regular production set also can be used as a JIG.


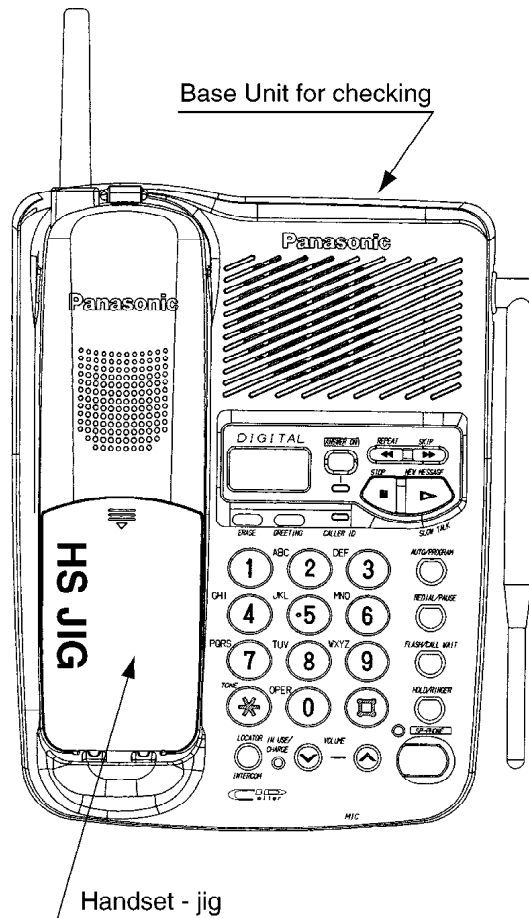
Fixation CH	Figure 1	
CH	POWER	making key
1CH	"Lo"	"FLASH" + "1"
3CH	"Lo"	"FLASH" + "2"
5CH	"Lo"	"FLASH" + "3"
7CH	"Lo"	"FLASH" + "4"
9CH	"Lo"	"FLASH" + "5"
11CH	"Lo"	"FLASH" + "6"
13CH	"Lo"	"FLASH" + "7"
15CH	"Lo"	"FLASH" + "8"
17CH	"Lo"	"FLASH" + "9"
19CH	"Lo"	"FLASH" + 
21CH	"Lo"	"FLASH" + "0"

Fig. Using TC1743 Handset-jig.



* KX-TC1743 is used as the jig.

8.9.2.2. Base Unit - jig (BS JIG) for Handset



The base unit jig uses two modes: **NORMAL POWER** mode and **TEST POWER** mode.

(1) **NORMAL POWER** mode. This test simulates the handset is at normal/close distance. The base unit is in **NORMAL POWER** mode right after the AC adapter has been inserted.

(2) **TEST LOW (POWER)** mode. Place the portable unit on the base unit while pushing

FLASH



and  key at the same time within 5 seconds after Power supply the portable unit. Refer to fixation CH table, figure 1 for the  key. This test simulates the handset is at very large distance from the base unit and the TX signal from base to handset is very small.

Procedure: First, place handset under test to charge (exchange security code), then remove handset from base after you hear a beep. Press TALK button on handset and if it links with the base, then this handset sensitivity is OK.

* BS JIG becomes [NORMAL POWER] mode immediately after the power supply turning on.

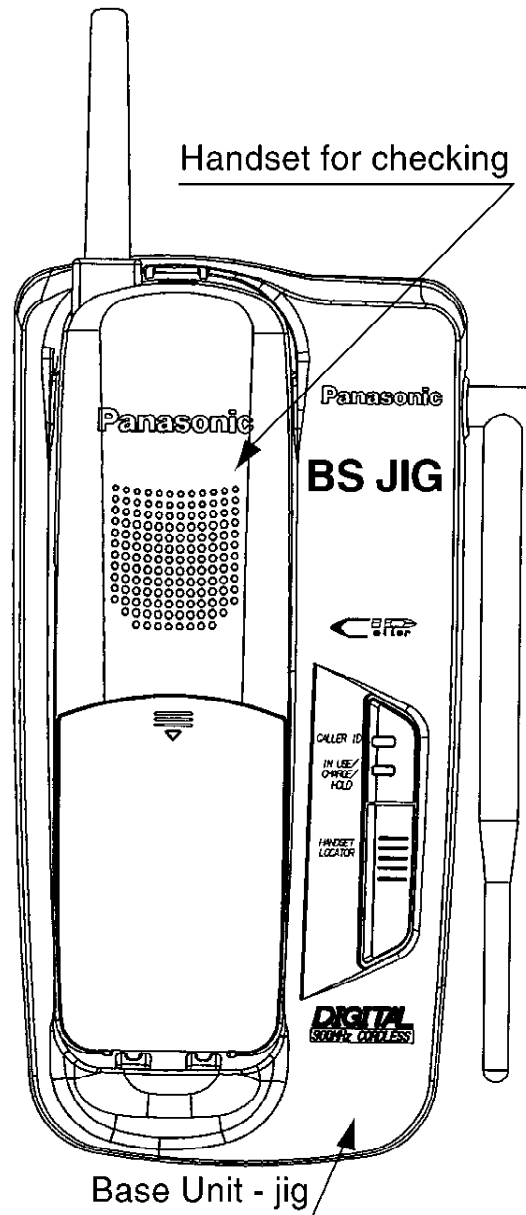
NOTES:

1) If when setting the base to **TEST LOW** mode, if handset beeps 3 times, press 2, 5, 8, 0 simultaneously and then disconnect battery. Re-install battery, place unit on cradle to get security codes and tries again.

2) Only KX-TC1703 with marks BS JIG/HS JIG can be used for troubleshooting. However,

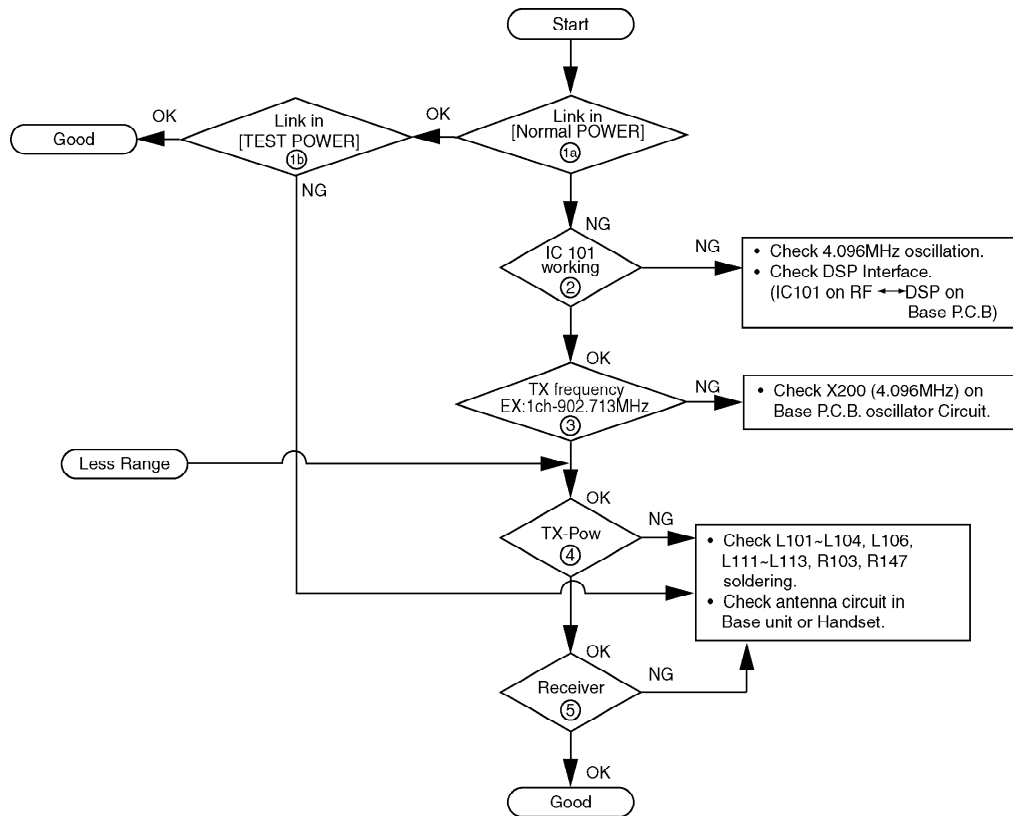
regular production set also can be used as a JIG.

Fig. Using TC1703 Handset-jig.



* KX-TC1703 is used as the jig.

8.9.3. RF Check Flowchart



①a~⑤: Details of confirmation items are following in “[Check Table for RF Block \(\)](#)”.

NOTE:

Flash Memory is IC300.

DSP is IC201.

8.9.4. Check Table for RF Block

No	Item		BS (Base unit) (*1)	HS (Handset) (*1)
1a.	Link confirmation [NORMAL POWER]	Procedure	1. Put "HS JIG" on BS. 2. Set MODE to [NORMAL POWER] position of "HS JIG". 3. Press [TALK] key of "HS JIG" to establish link.	1. Put HS on "BS JIG". 2. Set MODE to [NORMAL POWER] "BS JIG". 3. Press [TALK] key of "HS" to establish link.
1b.	Link confirmation [TEST POWER]	Procedure	1. Change MODE to [TEST POWER] position of "HS JIG". 2. Press [TALK] key of "HS JIG" to establish link about 30cm away from "BS".	1. Change MODE to [TEST POWER] "BS JIG". 2. Press [TALK] key of "HS" to establish link about 30cm away from "BS JIG".
2	IC101 working confirmation	Procedure	1. Set Test-mode [Continuous Send Low Power].(*3) 2. Confirm oscillate signal (4.096 MHz at Pin 33). (*4)	1. Set Test-mode [Continuous Send Low Power].(*3) 2. Confirm oscillate signal (4.096 MHz at Pin 33). (*4).
		Check point	1. Check Pin 33 oscillator. 2. Check DSP interface(IC101 ↔ DSP/BS) (*5).	1. Check Pin 33 oscillator. 2. Check DSP interface(IC101 ↔ DSP/HS) (*5).
3	TX frequency confirmation	Procedure	1. Set Test-mode [Continuous Send].(*3) 2. Confirm TX-carrier frequency (1CH = 902.713MHz ± 20kHz).	1. Set Test-mode [Continuous Send].(*3) 2. Confirm TX-carrier frequency (1CH = 902.713MHz ± 20kHz).
		Check point	1. Check DSP or X200 oscillator Circuit.	1. Check DSP or X201 oscillator Circuit.
4	TX Power confirmation	Procedure	1. Put RF wire to ANT and ANT_GND (See Base Unit Reference Drawing). Connect this wire Marconi or Spectrum Analyzer. 2. Set Test-mode. 3. Confirm TX power level within -3±5dBm (*2) (0.158~1.58mW)	1. Put RF wire to ANT and ANT_GND (See Handset Reference Drawing). 2. Set Test-mode. 3. Confirm TX power level within -3±5dBm (*2) (0.158~1.58mW)
		Check point	1. Check C102~C103, C161, L102, L111, R147 soldering. 2. Check Antenna in BS.	1. Check C102~C103, C161, L102, L111, R147 soldering. 2. Check Antenna in HS.
5	Receiver confirmation	Procedure	1. Put "HS JIG" on BS. 2. Set MODE to [NORMAL POWER] position of "HS JIG". 3. Press [TALK] key of "HS JIG" to establish link. 4. Change MODE to [TEST POWER] position of "HS JIG". 5. Press [TALK] key of "HS JIG" to establish link about 30cm away from "BS".	1. Put HS on "BS JIG". 2. Set MODE to [NORMAL POWER] "BS JIG". 3. Press [TALK] key of "HS" to establish link. 4. Change MODE to [TEST POWER] "BS JIG". 5. Press [TALK] key of "HS" to establish link about 30cm away from "BS JIG".
		Check point	1. Check L103, L104, L106, L111~L113, X101, C103~C106, C110, C118, R103 soldering. 2. Check Antenna in BS.	1. Check L103, L104, L106, L111~L113, X101, C103~C106, C110, C118, R103 soldering. 2. Check Antenna in HS.

(*1) BS: Base unit, HS: Handset unit, HS JIG: Handset-jig, BS JIG: Base unit-jig

(*2)<Marconi setting>

TX Freq.; 902.713MHz mode; WB

<Spectrum analyzer setting>

Freq. 902.713MHz Span 10MHz

RBW 1MHz or above VBW same as RBW

(*3)See [TEST MODE](#) ().

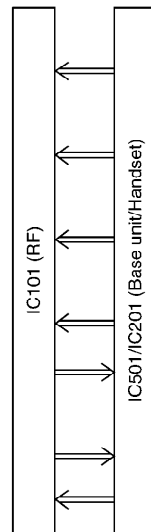
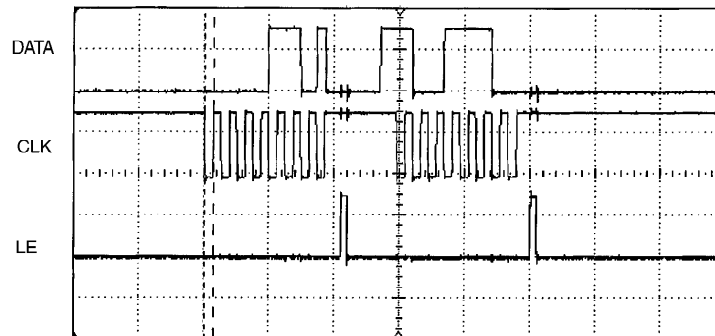
(*4)See [RF-DSP interface signal wave form](#) ().

(*5)See [Base Unit Reference Drawing](#) ().

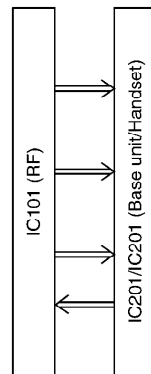
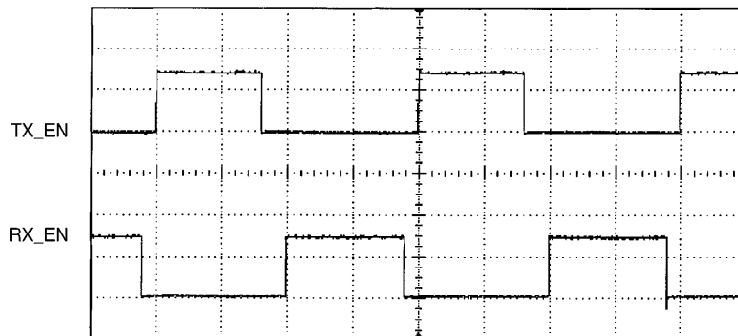
NOTE:
Flash Memory is IC300.
DSP is IC201.

8.9.5. RF-DSP interface signal wave form

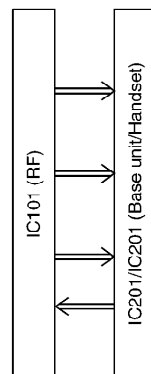
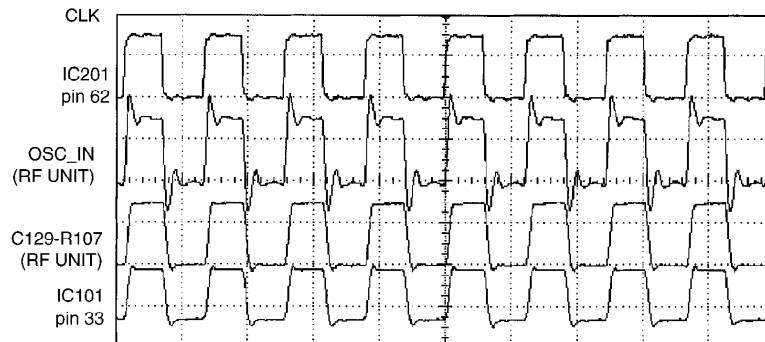
(1) Serial control line
<Standby mode>



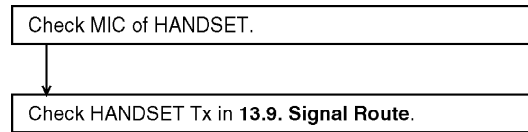
(2) Control line <Talk mode>
<Tx & Rx Power SW>



<Referenc clock 4.096MHz>



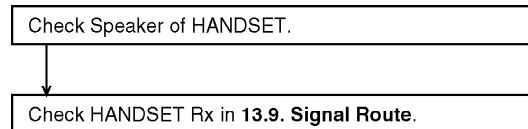
8.10. Check Handset Transmission



Cross Reference:

[Signal Route](#) ().

8.11. Check Handset Reception



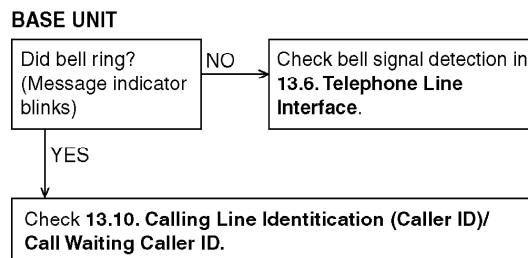
Cross Reference:

[Signal Route](#) ().

NOTE:

When checking the RF UNIT, Refer to [Check the RF Unit](#) ()

8.12. Check Call ID



Cross Reference:

[Telephone Line Interface](#) ().

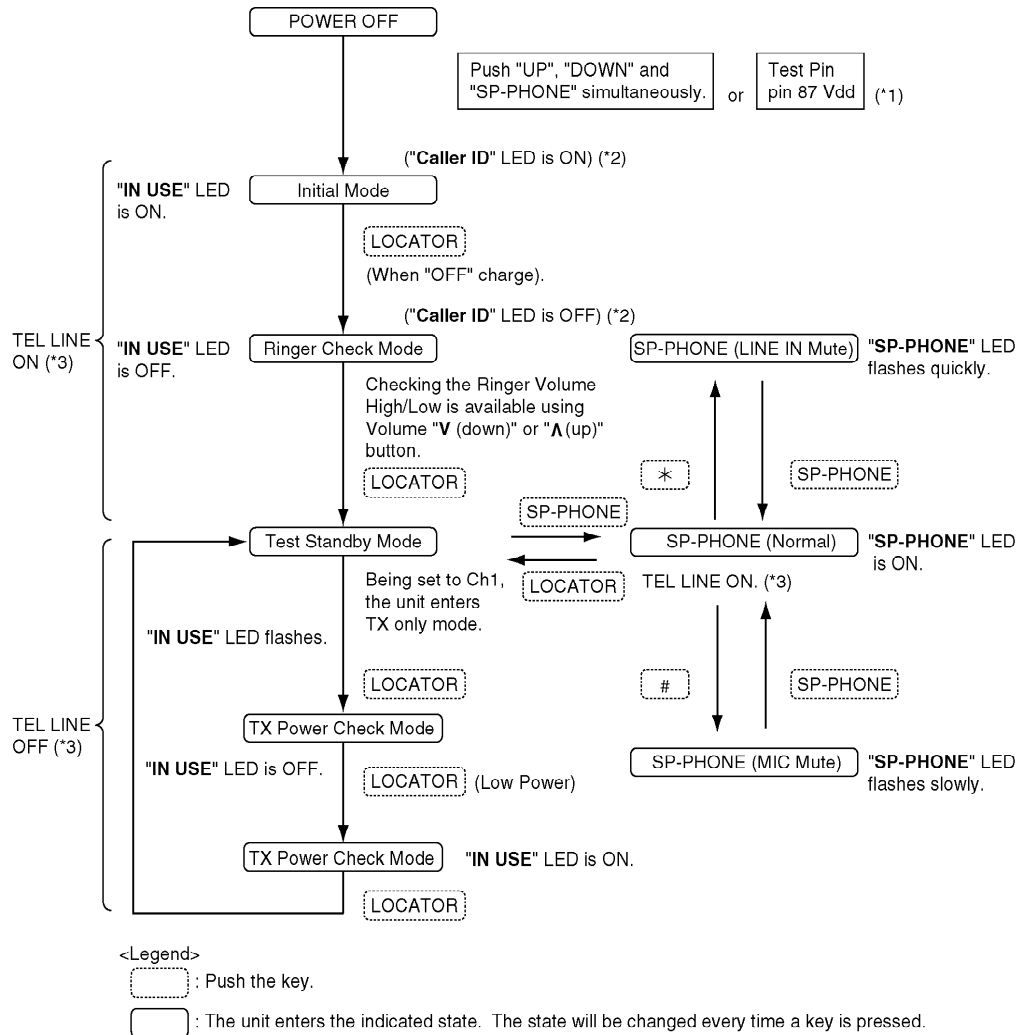
[Calling Line Identification \(Caller ID\)/Call Waiting Caller ID](#) ().

Note:

- Make sure the format of the Caller ID or Call Waiting Caller ID service of the Telephone company that the customer subscribed to.
- Also we recommend to confirm that the customer is really a subscriber of the service.

9. TEST MODE

9.1. Test mode flow chart for Base Unit



(*1) See **Base Unit Reference Drawing ()** - Should return to OPEN after entering the Test mode.

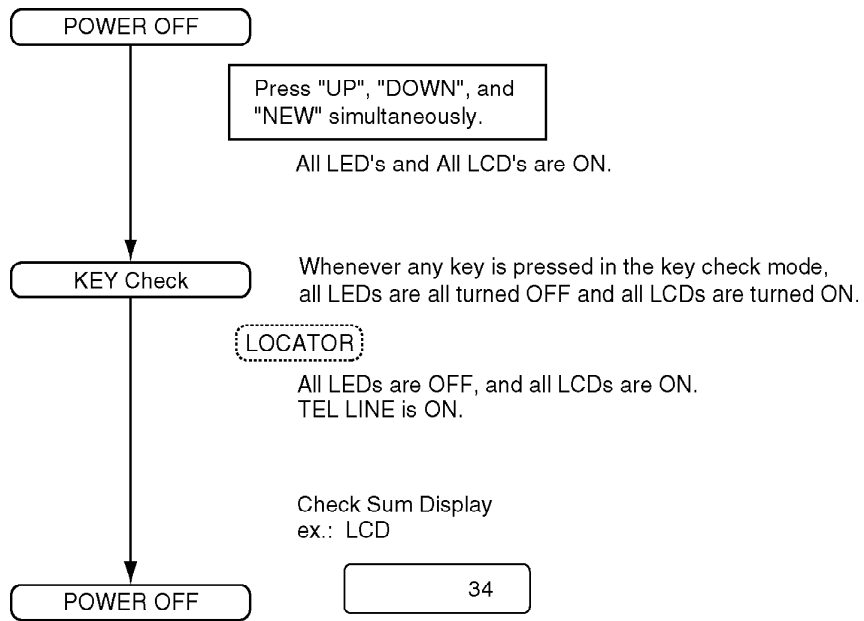
(*2) While the Tele line is connected, the “Caller ID” LED is ON/OFF as well.

(*3) It shows whether the telephone line is connected or not.

-ON: OFF HOOK.

-OFF: ON HOOK

9.2. TAM Test mode flow chart

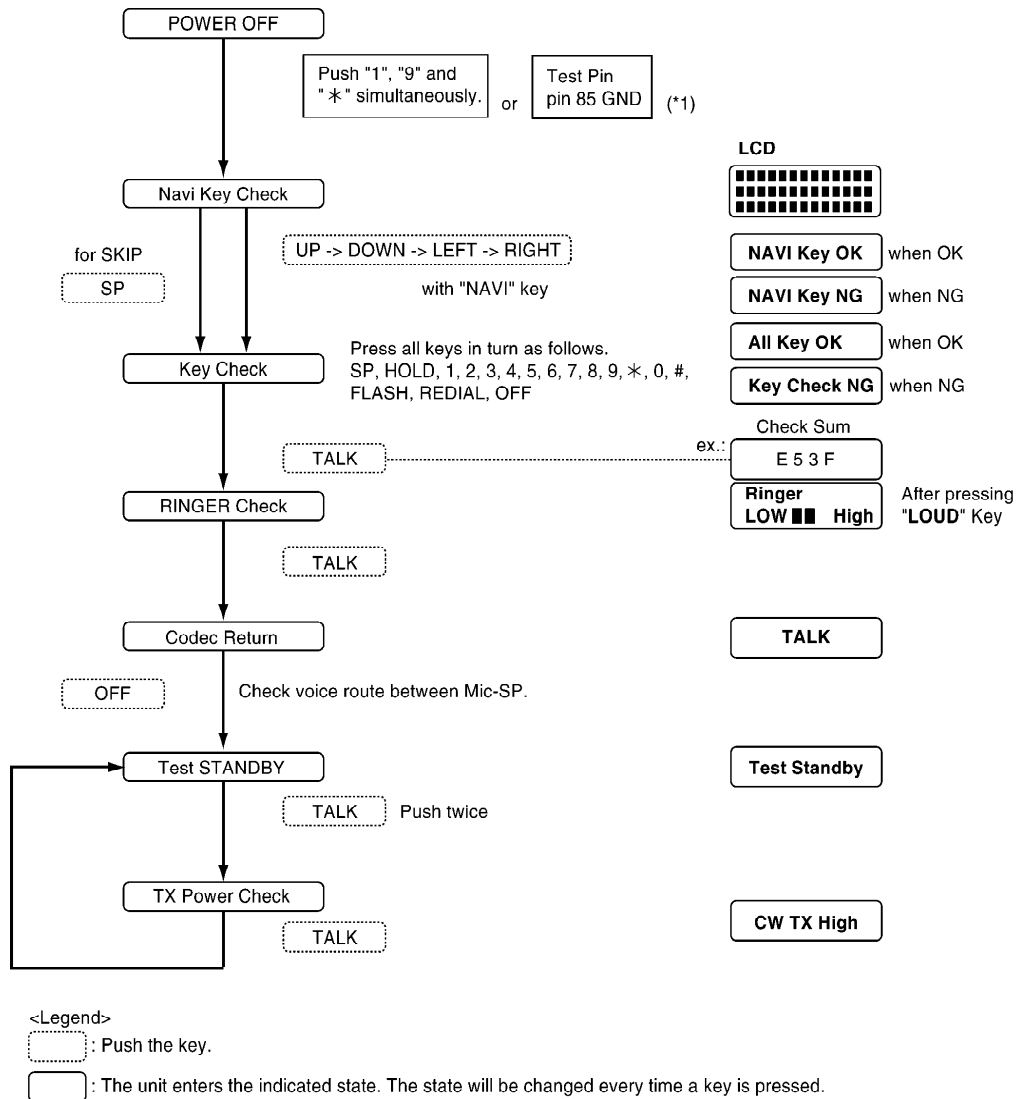


<Legend>

: Push the key.

: The unit enters the indicated state. The state will be changed every time a key is pressed.

9.3. Test mode flow chart for Handset



(*1) See **Handset Reference Drawing** ().---Should return to OPEN after entering the Test mode.

9.4. X101 Check

The confirmation is made under the Continuous Send mode of TEST MODE.

Equipment: Frequency counter

TP for adjustment: TP_ANT

Measure range: 902.713 MHz \pm 5 kHz (1ch) at Test Standby mode in **TEST MODE** ().

9.5. Base Unit Reference Drawing

9.6. Handset Reference Drawing

9.7. FREQUENCY TABLE

(TDD: time division duplex)

Channel	TX/RX Frequency (MHz)	Channel	TX/RX Frequency (MHz)
1	902.713	12	925.013
2	902.940	13	925.241
3	903.168	14	925.468
4	903.395	15	925.696
5	903.623	16	925.923
6	903.850	17	926.151
7	904.078	18	926.378
8	904.305	19	926.606
9	904.533	20	926.833
10	904.761	21	927.061
11	904.988	22	927.289

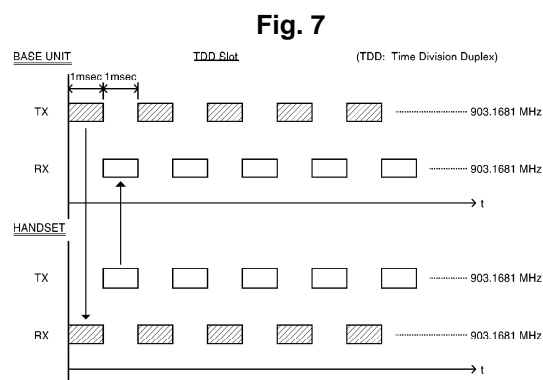
10. DESCRIPTION

10.1. Frequency

The frequency range of 902.713 MHz ~ 927.289 MHz is used. Transmitting and receiving channel between base unit and handset is same frequency. Refer to the Frequency Table.

10.2. Time Division Duplex (TDD) operation

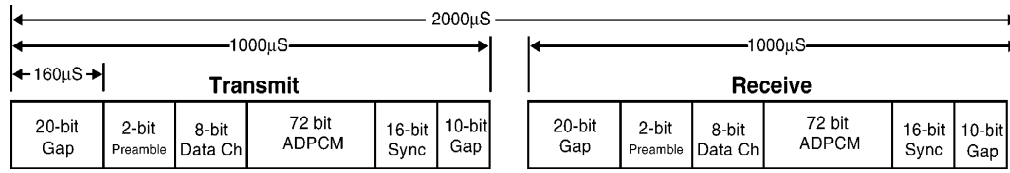
Transmission/reception between the base unit and handset is performed by time-sharing as shown in Fig. 7. 1 slot time of transmission and reception is 1mS. Same frequency is used in transmitting and receiving. The figure shows an example; the frequency of 3ch is used in transmitting between the base unit and handset.



10.2.1. TDD Frame Format

The TDD frame is 2mS in length. Each subframe contains 128 bits of 7.8 μ S duration. Each subframe consists of the following four fields:

- A 2-bit Preamble field
- An 8-bit Data Channel field
- An 16-bit Sync Word
- A 72-bit ADPCM Payload (CRC 8-bit)



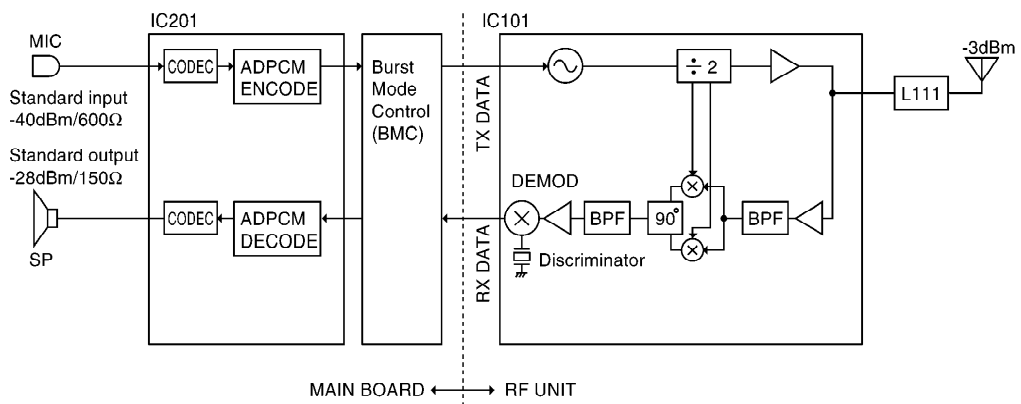
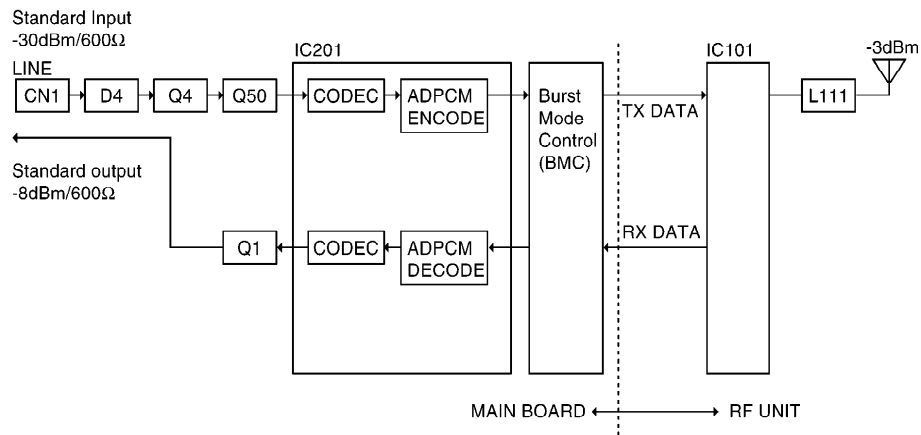
10.3. Signal Flowchart in the Whole System

Reception

CN1 of the base unit is connected to the TEL line, and the signal is input through the bridge diode D101. While talking the relay (Q121) is turned ON and amplified at the amplifiers Q50, then led to DSP (IC201). DSP generates ADPCM signal. The ADPCM signal is input to RFIC (IC101) of RF UNIT. RFIC outputs FSK modulated RF signal. The RF signal is passed through filter (L111) to be transmitted from the antenna. As for the handset, RF signal from the antenna is input to RFIC passing through filter (L111) then input to DSP (IC201). DSP performs ADPCM decoding to convert the signal into the voice signal, then it is output to the speaker.

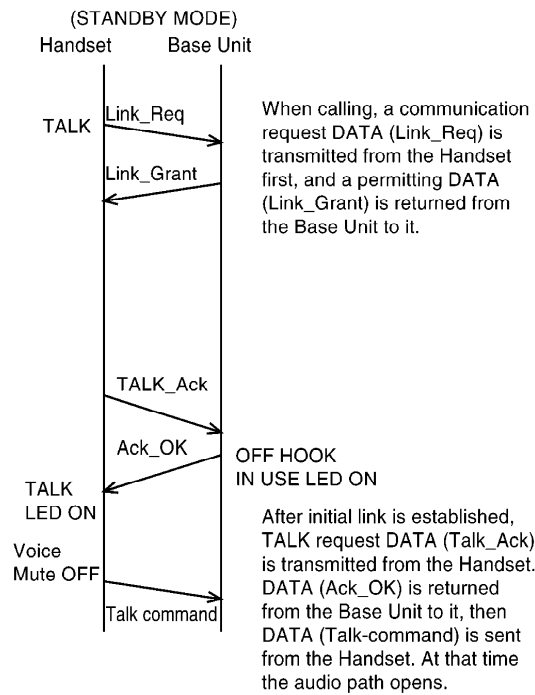
Transmission

The voice signal input from the microphone is led to DSP (IC201). The DSP generates ADPCM signal. As well as the reception, it is converted into the RF signal by RFIC (IC101). Passing through filter (L111), it is transmitted from the antenna. As for the base unit, RF signal from the antenna is input to RFIC (IC101) passing through filter (L111) and the balun then input to DSP (IC201). DSP performs ADPCM decoding to convert the signal into the voice signal. The voice signal is amplified at the TX amplifier (Q1), then output to the TEL line (CN1) through the relay (Q4) and bridge (D4).

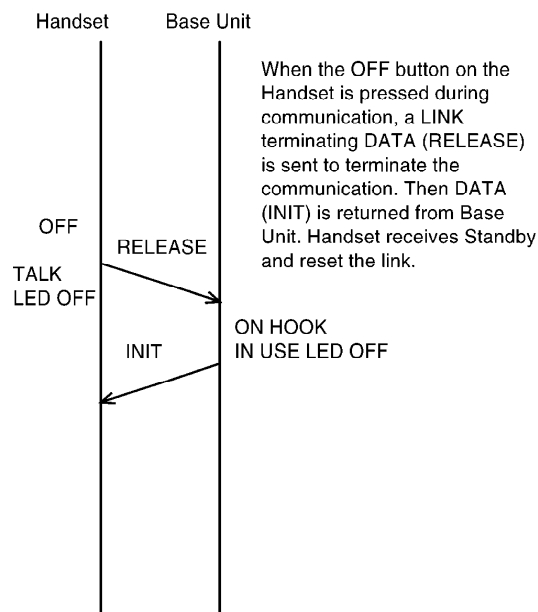


11. EXPLANATION OF BBIC (Base Band IC) DATA COMMUNICATION

11.1. Calling



11.2. To Terminate Communication



11.3. Ringing

(DSP, Flash Memory) is a digital speakerphone/speech/signal processing system that implements all the functions of speech compression, record and playback, and memory management required in a digital telephone answering machine.

The DSP system is fully controlled by a host processor DSP. The host processor provides activation and control of all that functions as follows.

13.1. DSP (Digital Speech/Signal Processing: IC201)

- Voice Message Recording/Play back

The DSP system use a proprietary speech compression technique to record and store voice message in FLASH MEMORY.

An error correction algorithm is used to enable playback of these messages from the FLASH MEMORY.

- DTMF Detection/Generator

The DTMF detection is implemented by the DSP system in software. The DTMF detection is performed during Record, Playback, and Line Monitoring modes of operation.

When the DTMF data from the Handset is received, the DTMF signal is output.

- Synthesized Voice (Pre-recorded message)

The DSP implements synthesized Voice, utilizing the built in speech detector and an FLASH MEMORY, which stored the vocabulary.

- Caller ID and Call Waiting CID demodulation

The DSP implements monitor and demodulate the FSK signals that provide CID information from the Central Office.

- Analog Switching

The voice signal from telephone line is transmitted to the speaker or the voice signal from speakerphone microphone is transmitted to the Telephone line, etc. They are determined by the signal path route operation of voice signal.

- Block Interface Circuit

RF unit, LED, Key scan, Speaker, Microphone, Telephone line, LCD

13.2. Flash Memory (IC300)

Following information data is stored.

- Voice signal

ex: Pre-recorded Greeting message, Incoming message

- Telephone number, etc.

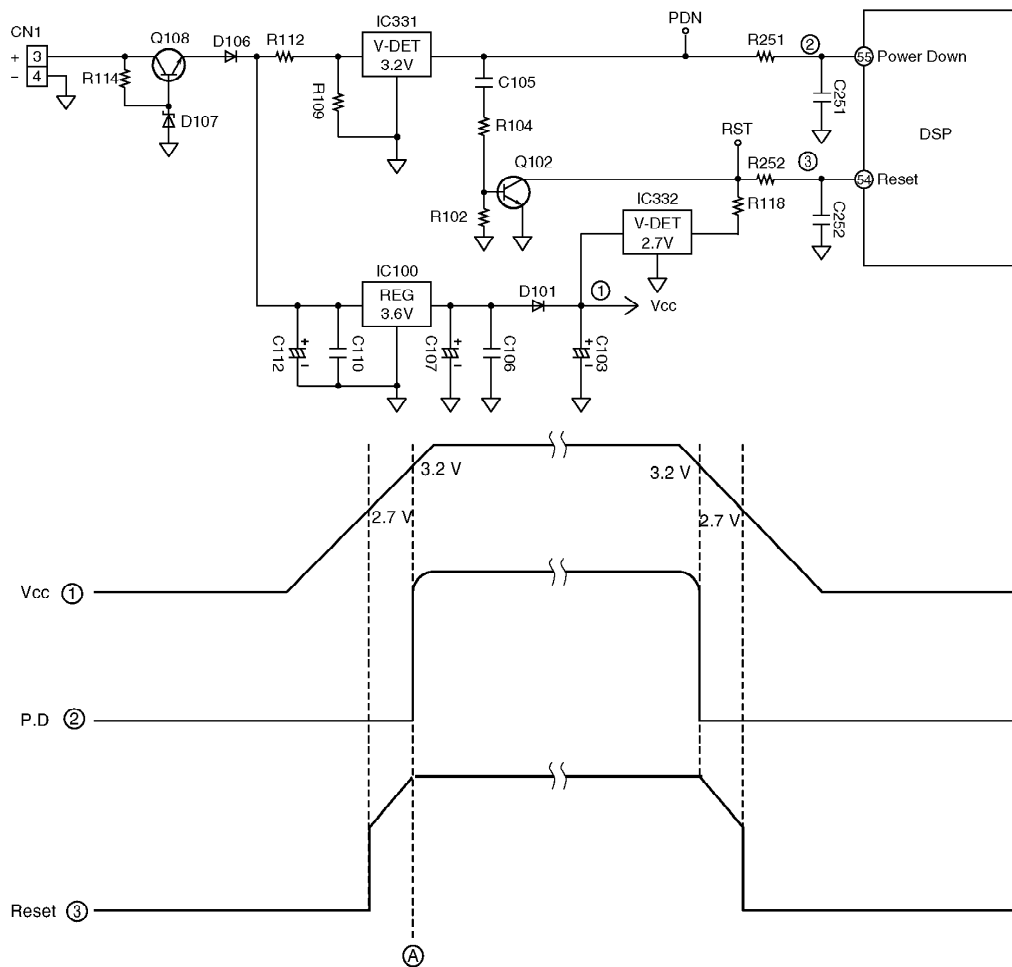
This circuit is used for to initialize the microcomputer when it incorporates an AC adaptor.

Circuit Operation:

When the AC Adaptor is inserted into the unit, then the voltage is shifted by IC100, D101 and power is supplied to the DSP.

The set can operate beyond point (A) in the circuit voltage diagram.

Circuit Diagram



13.5. Locator/Intercom Mode

1. When the base unit LOCATOR/INTERCOM button is pressed, a call monitor signal (intercom sound) is output from pins 29 and 31 of IC201. Thus a monitor tone is heard from the speaker.
2. At the same time, flashing of the IN USE/CHARGE (LED202) is obtained from pin 70 of IC201. This status is called "Intercom stand-by".
3. The receiving signal flows:
RF → pins 29 and 31 of IC201 → SP

4. The transmission signal flows:

MIC → C235, C236 → R213, R214 → pins 46 and 47 of IC201 → RF

13.6. Telephone Line Interface

Telephone Line Interface Circuit:

Function

- Bell signal detection
- ON/OFF hook and pulse dial circuit
- Side tone circuit
- Auto-disconnect circuit/Parallel connection detection circuit

Bell signal detection and OFF HOOK circuit:

In the idle mode, Q4 is open to cut the DC loop current and decrease the ring load. When ring voltage appears at the Tip (T) and Ring (R) leads (When the telephone rings), the AC ring voltage is transferred as follows:

T → L1 → R30 → C16 → Q6 → DSP pin 27. [BELL]

When the CPU (DSP) detects a ring signal, Q4 turns on, thus providing an off-hook condition (active DC current flow through the circuit) and the following signal flow is for the voice signal.

T → D4 → Q4 → R1/R2 → C1 → R3 → R5 → D1 → D4 → L2 → POS1 → R

ON HOOK Circuit:

Q4 is open, Q4 is connected as to cut the DC loop current and to cut the voice signal. The unit is consequently in an on-hook condition.

Pulse Dial Circuit:

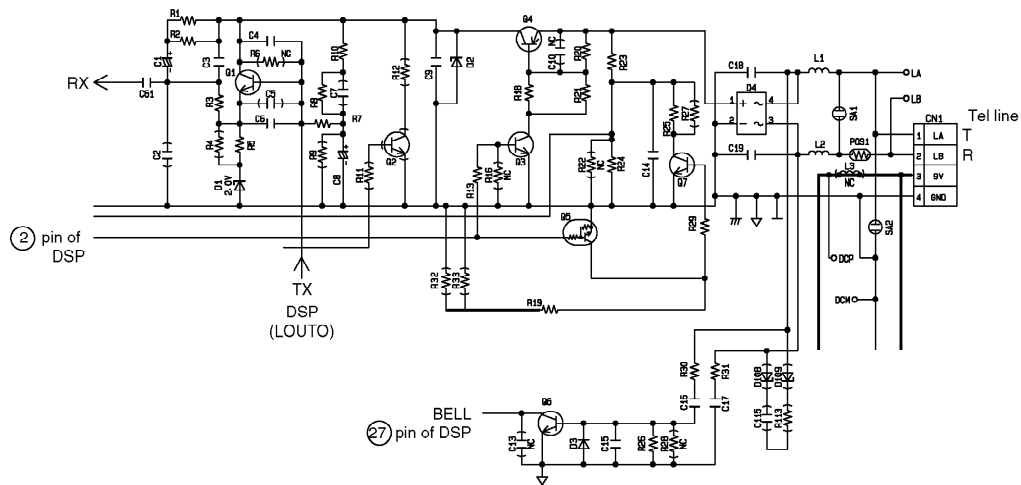
DSP (2) turns Q4 ON/OFF to make the pulse dialing.

Side Tone Circuit:

Basically this circuit prevents the TX signal from feeding back to RX signal.

As for this unit, TX signal feed back from Q1 is canceled by the chancellor circuit of DSP.

Circuit Diagram



13.7. Auto Disconnect Circuit

Function:

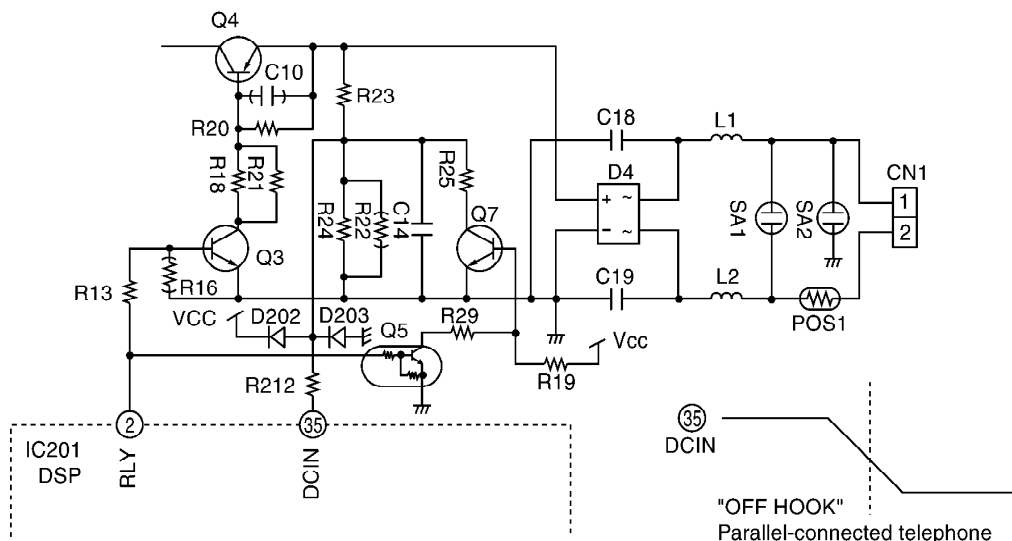
This circuit is used to detect the fact that another telephone connected to the same line is OFF-HOOK while the unit is in a receiving status or OGM transmitting status.

Circuit Operation:

The voltage DCIN of DSP is monitored. If a parallel-connected telephone is put into an OFF HOOK status, the presence/absence of a parallel connection is determined when the voltage changes by 0.2V or more.

When the set detects the parallel-connected telephone is OFF HOOK status, the line is disconnected.

Circuit Diagram



13.8. Parallel Connection Detect Circuit

Function:

In order to disable call waiting and stutter tone functions when using telephones connected in parallel, it is necessary to have a circuit that judges whether a telephone connected in parallel is in use or not. This circuit determines whether the telephone connected in parallel is on hook or

off hook by detecting changes in the T/R voltage.

Circuit Operation:

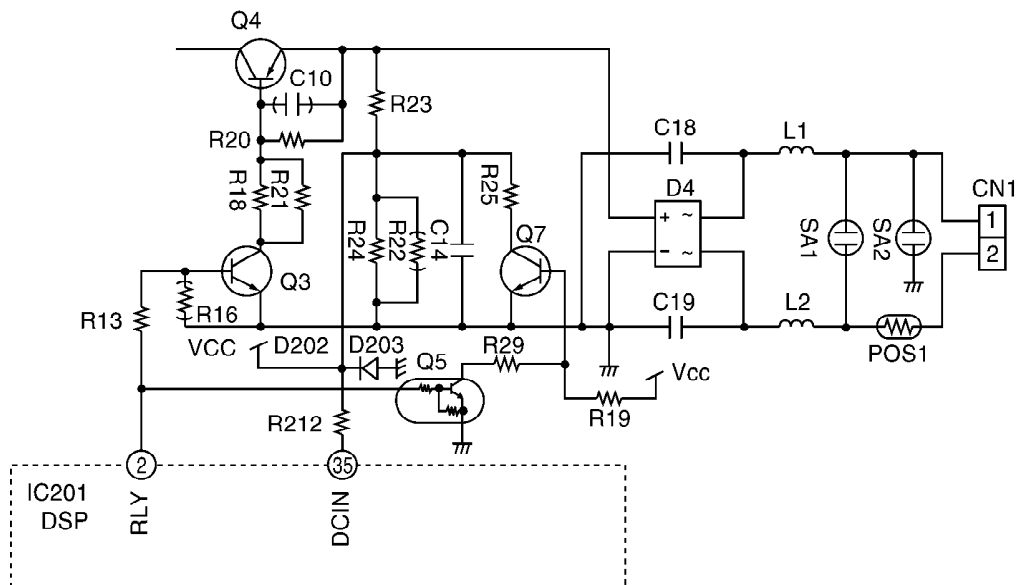
Parallel connection detection when on hook:

When on hook Q7 is ON, the voltage is monitored DCIN of DSP. There is no parallel connection if the voltage is 1.65 V or higher, while a parallel connection is deemed to exist if the voltage is lower.

Parallel connection detection when off hook:

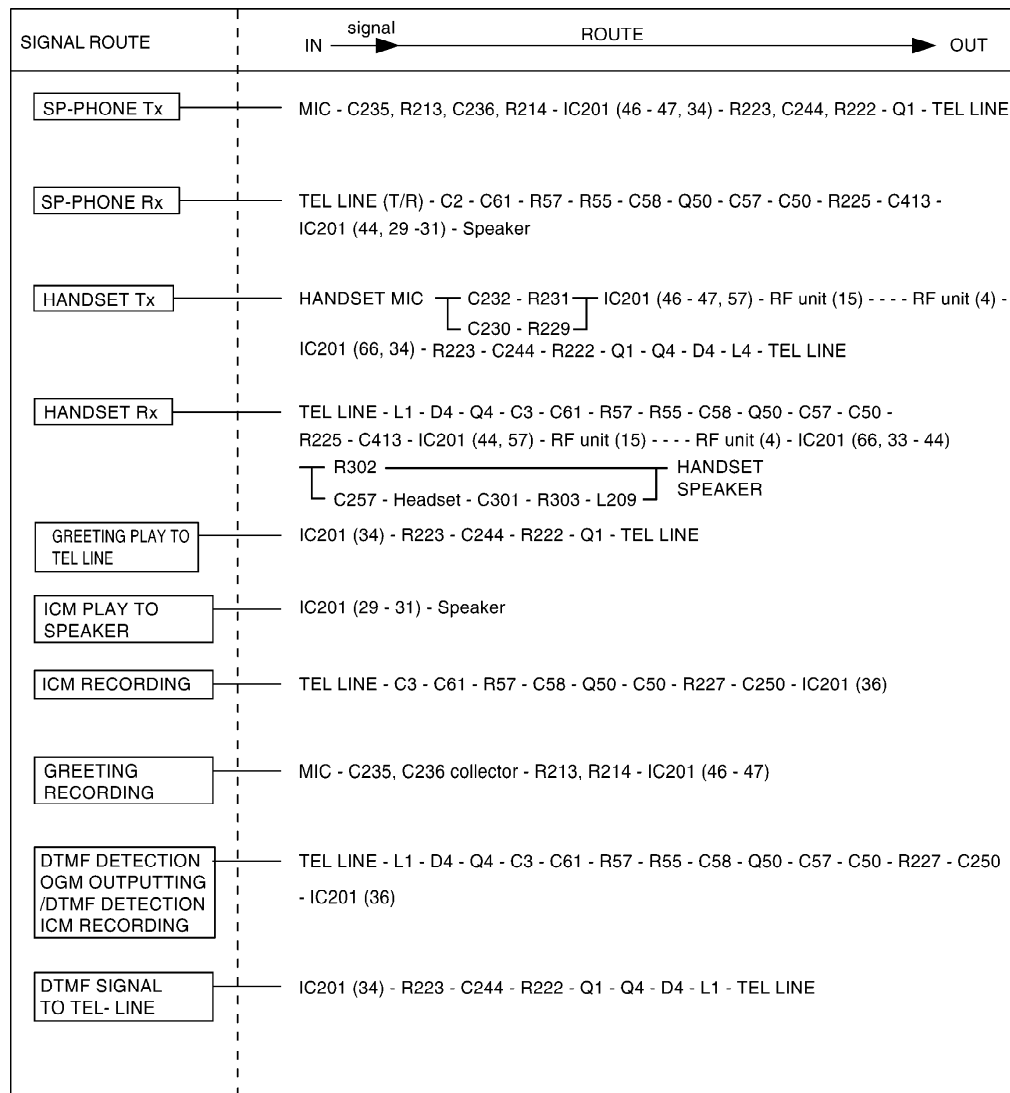
When off hook Q7 is OFF, the voltage is monitored DCIN of DSP; the presence/absence of a parallel connection is determined when the voltage changes by 0.2 V or more.

Circuit Diagram



13.9. Signal Route

Each signal route is as follows.



13.10. Calling Line Identification (Caller ID)/Call Waiting Caller ID

Function:

Caller ID

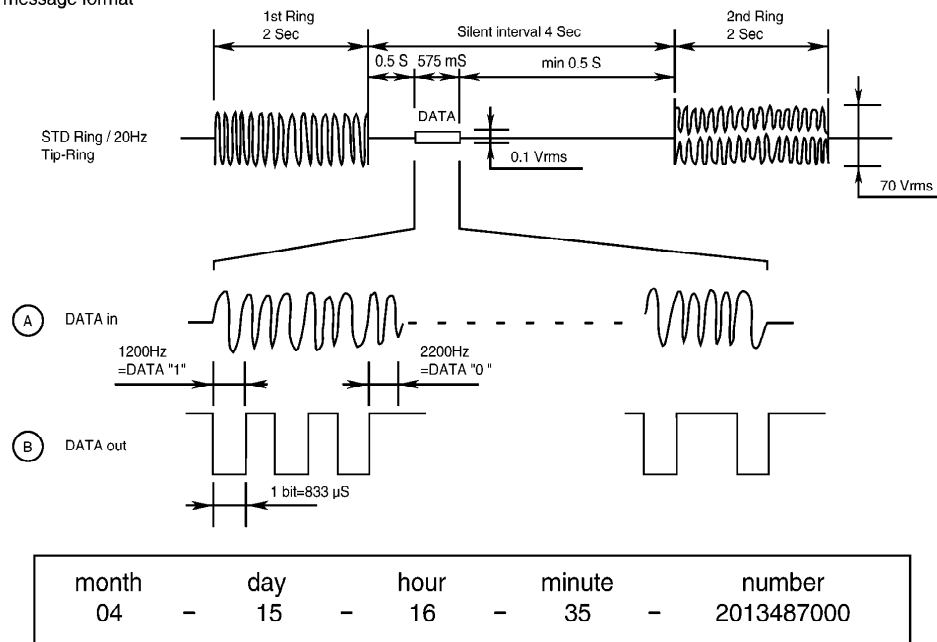
The caller ID is a chargeable ID which the user of a telephone circuit obtains by entering a contract with the telephone company to utilize a caller ID service. For this reason, the operation of this circuit assumes that a caller ID service contract has been entered for the circuit being used.

The data for the caller ID from the telephone exchange is sent during the interval between the first and second rings of the bell signal. The data from the telephone exchange is a modem signal which is modulated in an FSK (Frequency Shift Keying) * format. Data "1" is a 1200 Hz sine wave, and data "0" a 2200 Hz sine wave.

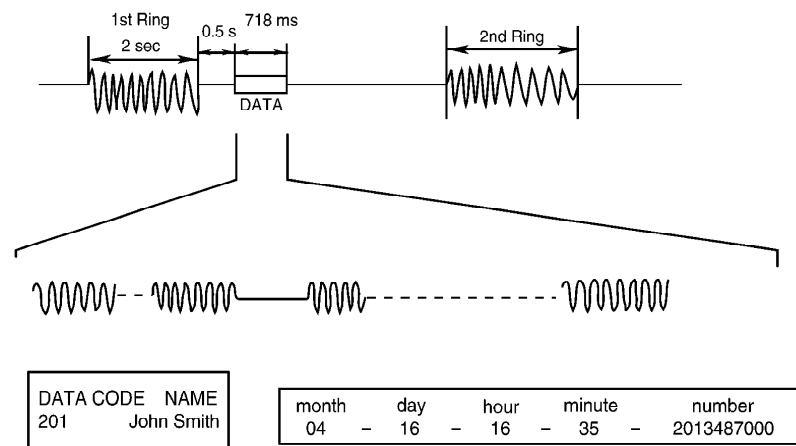
There are two type of the message format which can be received: i.e. the single message format and plural message format. The plural message format allows to transmit the name and data code information in addition to the time and telephone number data.

*: Also the telephone exchange service provides other formats.

● Single message format



● Plural message format



Call Waiting Caller ID

Calling Identity Delivery on Call Waiting (CIDCW) is a CLASS service that allows a customer, while off-hook on an existing call, to receive information about a calling party on a waited call. The transmission of the calling information takes place almost immediately after the customer is alerted to the new call so he/she can use this information to decide whether to take the new call.

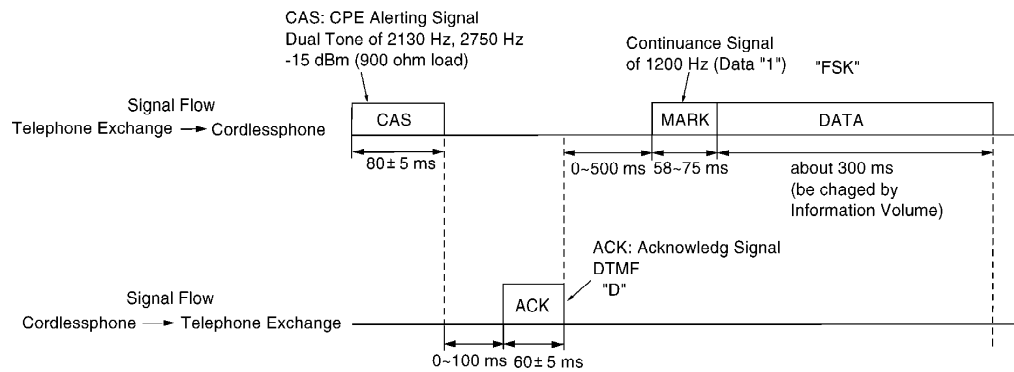
Function:

The telephone exchange transmits or receives CAS and ACK signals through each voice RX/TX route. Then FSK data and MARK data pass the following route.

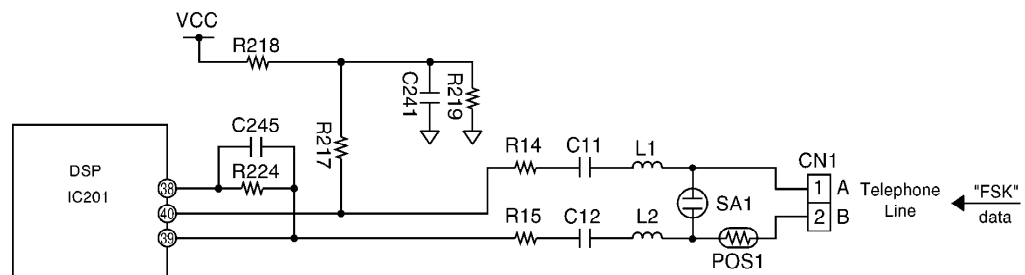
Telephone Line → CN1(A, B) → C11, C12 → R14, R15 → DSP (38~40).

. If the unit deems that a telephone connected in parallel is in use, ACK is not returned even if CAS is received, and the information for the second and subsequent callers is not displayed on the portable handset display.

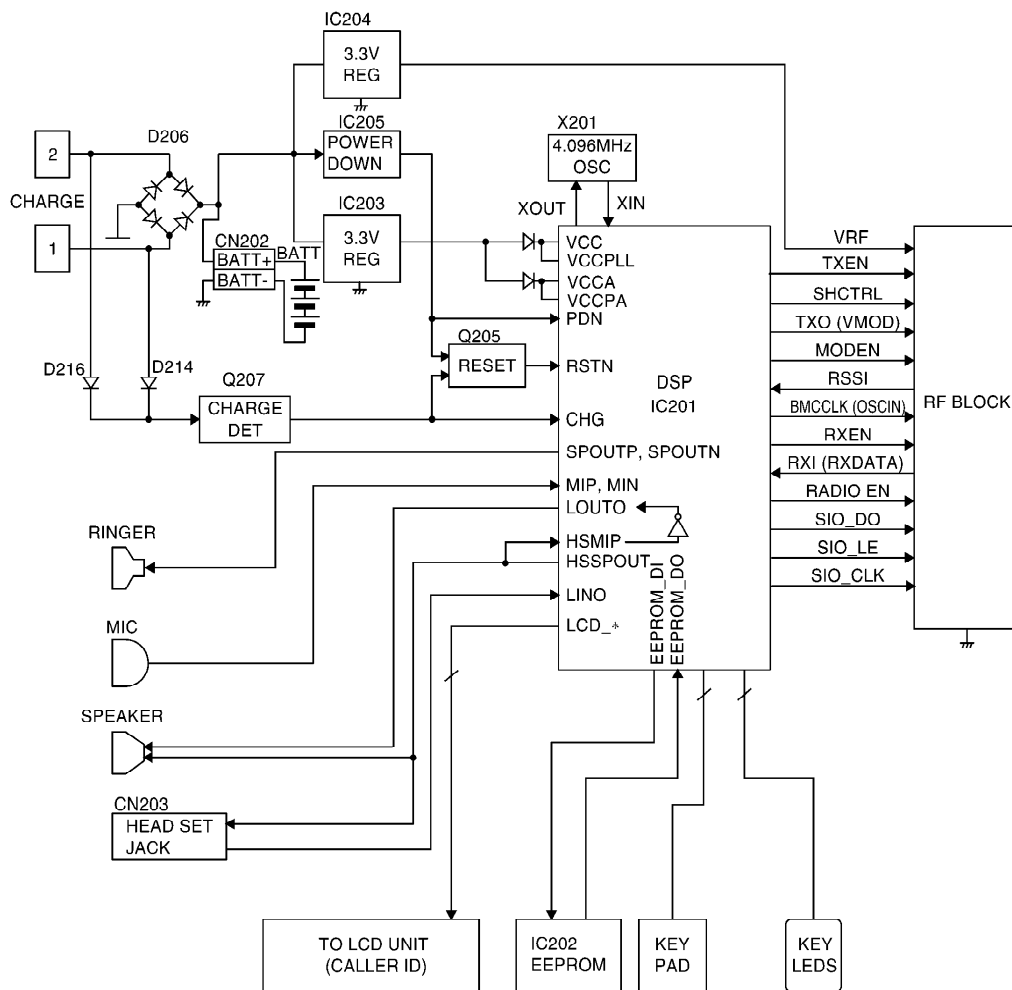
Call Waiting Format



Circuit Diagram



14. BLOCK DIAGRAM (Handset)



15. CIRCUIT OPERATION (Handset)

15.1. Construction

The circuit mainly consists of DSP and RF unit as shown in the block diagram.

15.1.1. DSP:IC201

Function

- Battery Low, Power down defect circuit
 - Ringer Generation
 - Interface circuit
- RF unit, speaker, mic, LED, Key scan, LCD, Headset

15.1.2. RF unit

Mainly voice signal is modulated to RF, or it goes the other way.

15.1.3. EEPROM: IC201

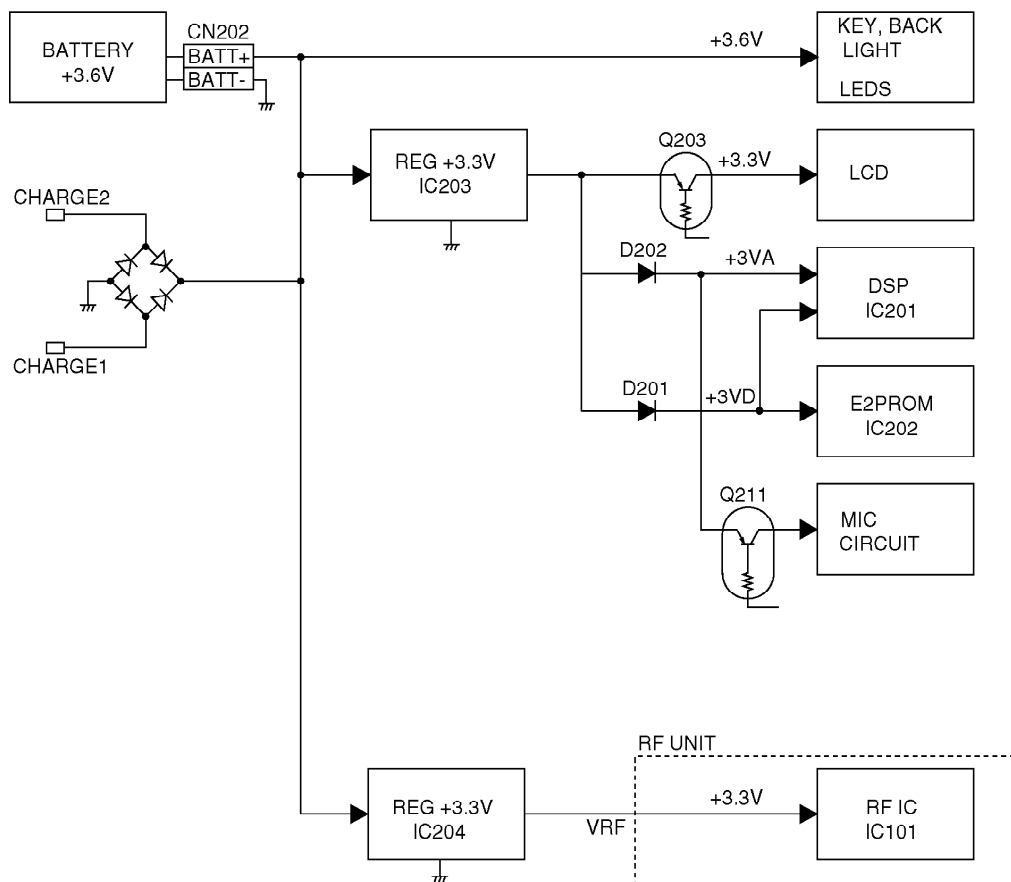
All setting data is stored.

ex: ID code, user setting (Flash Time, Tone/Pulse)

15.2. Power Supply Circuit

Voltage is supplied separately to each block.

Block Diagram (Handset Power)



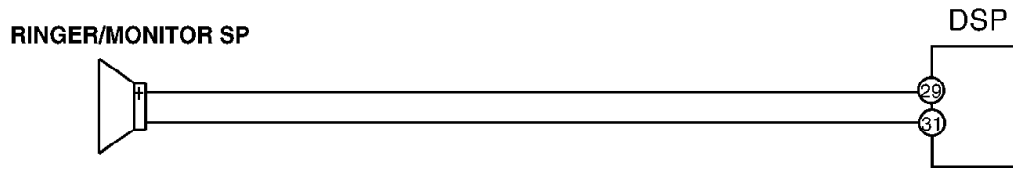
15.3. Charge Circuit

Ni-Cd battery is connected to CN202. When the handset is put on the cradle of the base unit, the power is supplied from CHARGE1 and CHARGE2 terminals to charge the battery. Q207 detects the voltage of CHARGE1 and CHARGE2 terminals, then the handset makes ID code setting (*) with the base unit.

15.4. Ringer and Handset SP-Phone

DSP (29-31) → SP/RINGER

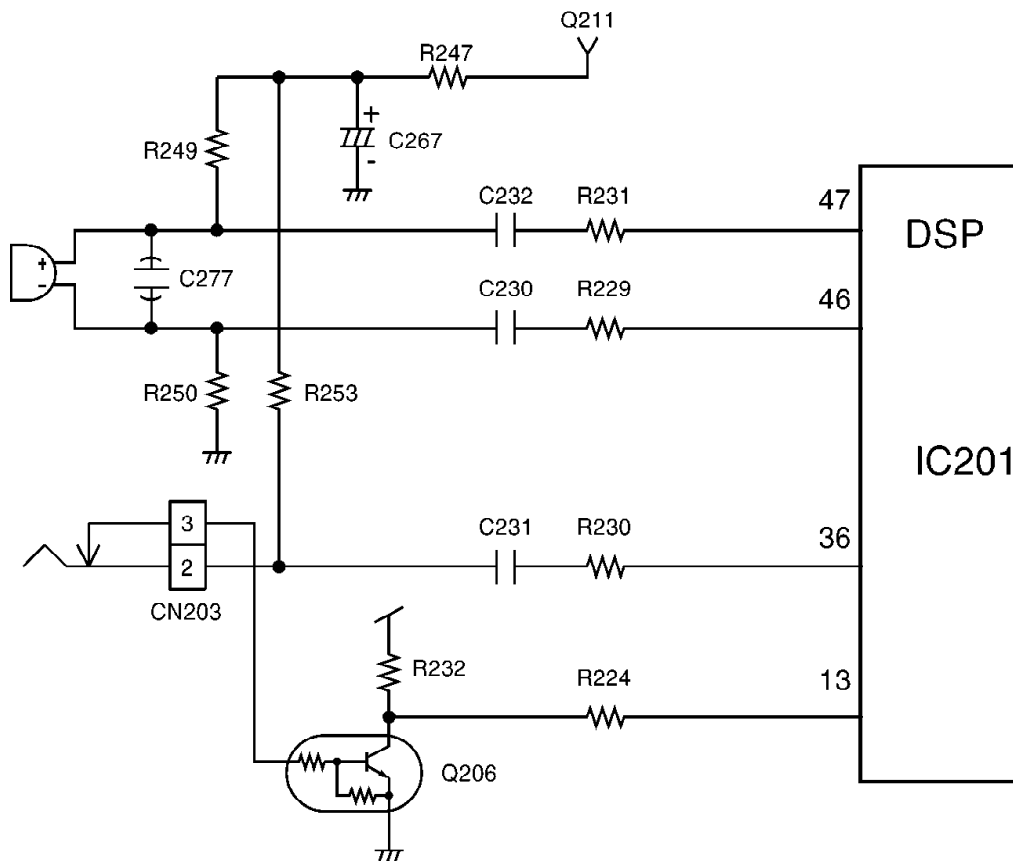
Circuit Diagram



15.5. Sending Signal

The voice signal from the microphone input to DSP (46-47). CN203 is the headphone jack. When the headphone is connected, the Q206 detect it. The input from the microphone of the handset (MIN, MIP) is cut and the microphone signal from the headphone is input to DSP (36). Also the power for the microphone is supplied from Q211, and the power is turned OFF on standby.

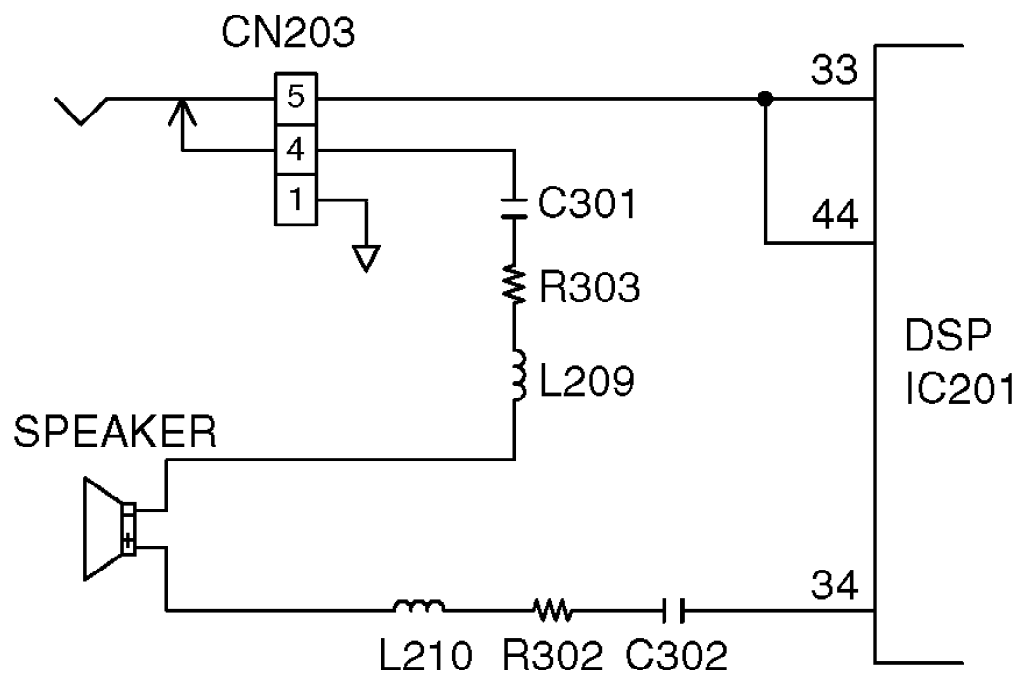
Circuit Diagram



15.6. Reception Signal

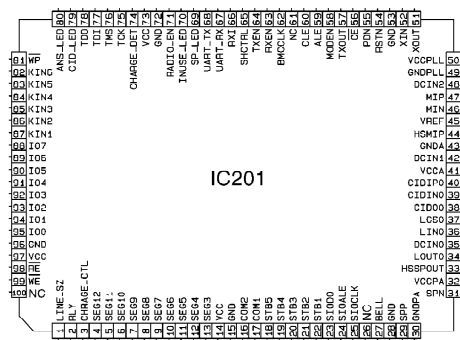
The voice signal from the base unit is output to DSP (33) (HSSOUT). This signal is led to the headset jack (CN201) and DSP (44) (HSMIP). The signal input to DSP (44) is inverted and output to DSP (34) (LOUTO). The signal through the headset jack is inverted, then output from DSP (34) to drive the speaker. When the headset is inserted to the jack, the voice signal is cut at the jack, so the sound does not come out from the speaker, but from the headset only.

Circuit Diagram



16. CPU DATA (Base Unit)

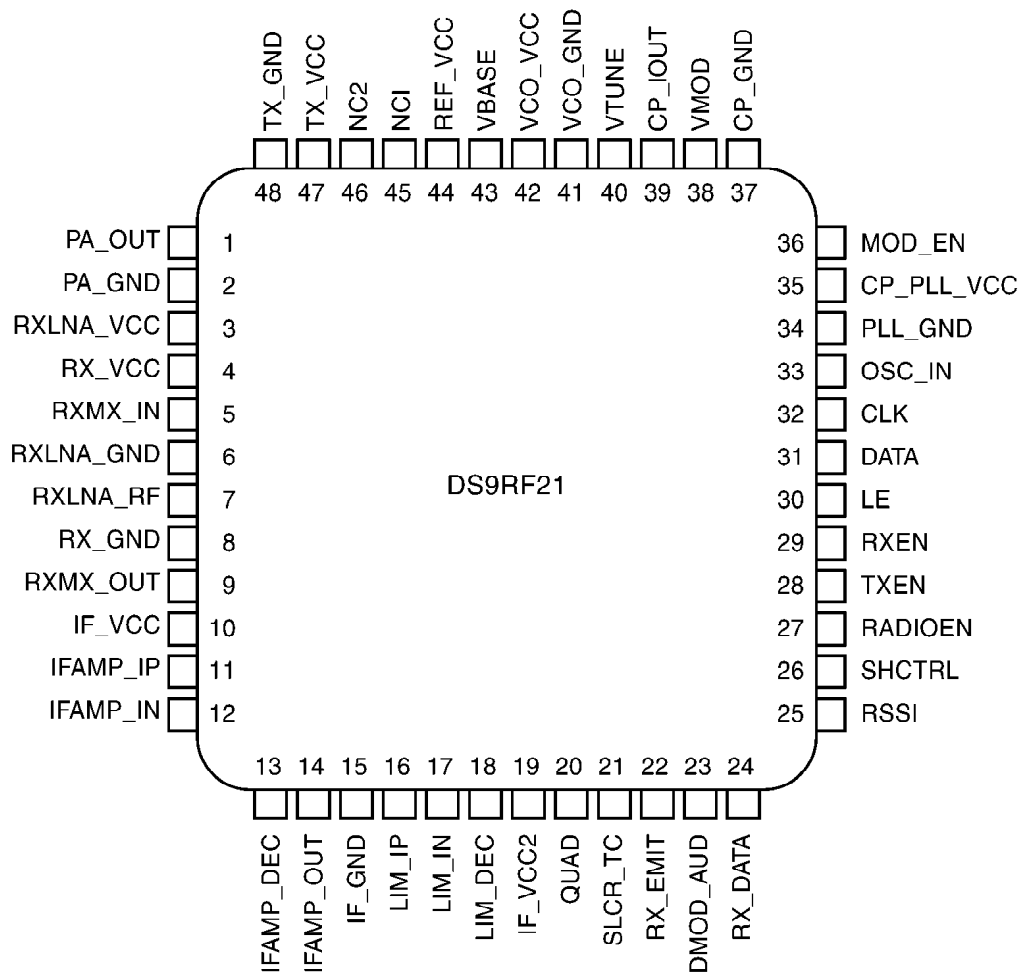
16.1. IC201



Pin	Description	I/O	High	High_Z	Low	Pin	Description	I/O	High	High_Z	Low
1	LINE_SZ	D.O	On	-	Off	51	XOUT	A.O	-	-	-
2	RLY	D.O	On	-	Off	52	XIN	A.I	-	-	-
3	CHAGEG_CTL	D.O	-	Charge	Non Charge	53	GND	GND	-	-	GND
4	SEG 12	D.O	High	-	Low	54	RSTN	D.I	Normal	-	Reset
5	SEG 11	D.O	High	-	Low	55	PDN	D.I	Power On	-	Power Down
6	SEG 10	D.O	High	-	Low	56	CE	D.O	Not	-	Active
7	SEG 9	D.O	High	-	Low	57	TXOUT	D.O	-	-	-
8	SEG 8	D.O	High	-	Low	58	MODEN	D.I	-	-	-
9	SEG 7	D.O	High	-	Low	59	ALE	D.O	Latch	-	Not
10	SEG 6	D.O	High	-	Low	60	CLE	D.O	Latch	-	Not
11	SEG 5	D.O	High	-	Low	61	NC	D.O	-	-	Normal
12	SEG 4	D.O	High	-	Low	62	BMCCLK	D.O	-	-	-
13	SEG 3	D.O	High	-	Low	63	RXEN	D.O	-	-	-
14	VCC	VCC	Vcc	-	-	64	TXEN	D.O	-	-	-
15	GND	GND	-	-	GND	65	SHCTRL	D.O	-	-	-
16	COM2	D.O	High	Middle	Low	66	RXI	D.I	-	-	-
17	COM1	D.O	High	Middle	Low	67	UART_RX	D.I	High	-	Low
18	STB5	D.O	Active	Not	-	68	UART_TX	D.O	High	-	Low
19	STB4	D.O	Active	Not	-	69	SP_LED	D.O	-	Off	On
20	STB3	D.O	Active	Not	-	70	INUSE_LED	D.O	-	Off	On
21	STB2	D.O	Active	Not	-	71	RADIO_EN	D.O	-	-	-
22	STB1	D.O	Active	Not	-	72	GND	GND	-	-	GND
23	SIO DO	D.O	High	-	Low	73	VCC	VCC	VCC	-	-
24	SIOALE	D.O	Latch	-	Not	74	CHARGE_DET	D.I	Off Charge	-	On Charge
25	SIOCLK	D.O	High	-	Low	75	TCK	D.O	-	-	-
26	NC	D.O	-	-	Normal	76	TMS	D.O	-	-	-
27	BELL	D.I	Off	-	On	77	TDI	D.I	-	-	-
28	GND	GND	-	-	GND	78	TDO	D.O	-	-	-
29	SPP	A.O	-	-	-	79	CID_LED	D.O	-	Off	On
30	GNDPA	GND	-	-	GND	80	ANS_LED	D.O	-	Off	On
31	SPN	A.O	-	-	-	81	WP	D.O	Off	-	On
32	VCCPA	VCC	VCC	-	-	82	KIN6	D.I	Key In	-	Non
33	HSSPOUT	A.O	-	-	-	83	KIN5	D.I	Key In	-	Non
34	LOUTO	A.O	-	-	-	84	KIN4	D.I	Key In	-	Non
35	DCIN0	A.I	-	-	-	85	KIN3	D.I	Key In	-	Non
36	LINO	A.I	-	-	-	86	KIN2	D.I	Key In	-	Non
37	LGSO	A.I	-	-	-	87	KIN1	D.I	Key In	-	Non
38	CIDOO	A.I	-	-	-	88	IO7	D.O	High	-	Low
39	CIDINO	A.I	-	-	-	89	IO6	D.O	High	-	Low
40	CIDIPO	A.I	-	-	-	90	IO5	D.O	High	-	Low
41	VCCA	VCC	VCC	-	-	91	IO4	D.O	High	-	Low
42	DCIN1	A.I	-	-	-	92	IO3	D.O	High	-	Low
43	GND A	GND	-	-	GND	93	IO2	D.O	High	-	Low
44	HSMIP	A.I	-	-	-	94	IO1	D.O	High	-	Low
45	VREF	A.O	-	-	-	95	IO0	D.O	High	-	Low
46	MIN	A.I	-	-	-	96	GND	GND	-	-	GND
47	MIP	A.I	-	-	-	97	VCC	VCC	VCC	-	-
48	DCIN2	A.I	-	-	-	98	RE	D.O	Active	-	Not
49	GNDPLL	GND	-	-	GND	99	WE	D.O	Active	-	Not
50	VCCPLL	VCC	VCC	-	-	100	NC	D.O	-	-	Normal

17. CPU DATA (Handset)

17.1. IC201



Pin	Description	I/O	Pin	Description	I/O
1	PA_OUT	O	25	RSSI	O
2	PA_GND	O	26	SHCTRL	I
3	RXLNA_VCC	O&VCC	27	RADIOEN	I
4	RX_VCC	VCC	28	TXEN	I
5	RXMX_IN	I	29	RXEN	I
6	RXLNA_GND	GND	30	LE	I
7	RXLNA_RF	I	31	DATA	I
8	RX_GND	GND	32	CLK	I
9	RXMX_OUT	O&VCC	33	OSC_IN	I
10	IF_VCC	VCC	34	PLL_GND	GND
11	IFAMP_IP	I	35	CP_PLL_VCC	VCC
12	IFAMP_IN	I	36	MOD_EN	I
13	IFAMP_DEC	I	37	CP_GND	GND
14	IFAMP_OUT	O	38	VMOD	I
15	IF_GND	GND	39	CP_IOUT	O
16	LIM_IP	I	40	VTUNE	I
17	LIM_IN	I	41	VCO_GND	GND
18	LIM_DEC	I	42	VCO_VCC	VCC
19	IF_VCC2	VCC	43	VBASE	I
20	QUAD	I	44	REF_VCC	VCC
21	SLCR_TC	I	45	NCI	N/C

22	RX_EMIT	GND	46	NC2	N/C
23	DMOD_AUD	O	47	TX_VCC	VCC
24	RX_DATA	O	48	TX_GND	GND

19. HOW TO REPLACE FLAT PACKAGE IC

19.1. Preparation

- SOLDER

Sparkle Solder 115A-1, 115B-1 or Almit Solder KR-19, KR-19RMA

- Soldering iron

Recommended power consumption will be between 30 W to 40 W.

Temperature of Copper Rod $662 \pm 50^{\circ}\text{F}$ ($350 \pm 10^{\circ}\text{C}$)

(An expert may handle between 60 W to 80 W iron, but beginner might damage foil by overheating.)

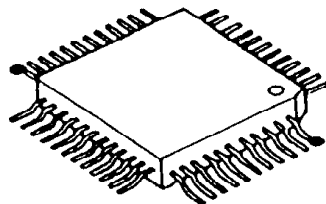
- Flux

HI115 Specific gravity 0.863.

(Original flux will be replaced daily.)

19.2. Procedure

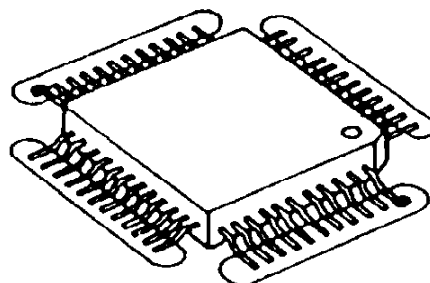
1. Temporary fix FLAT PACKAGE IC by soldering on two marked 2 pins.



● - - - - - Temporary soldering point.

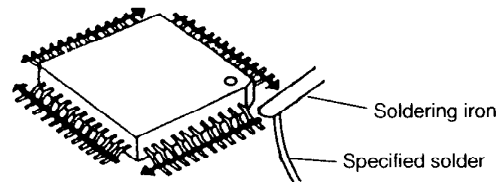
*Most important matter is accurate setting of IC to the corresponding soldering foil.

2. Apply flux for all pins of FLAT PACKAGE IC.



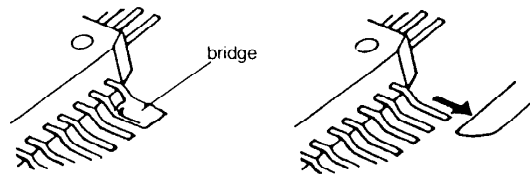
○ - - - - - Flux

3. Solder employing specified solder to direction of arrow, as sliding the soldering iron.

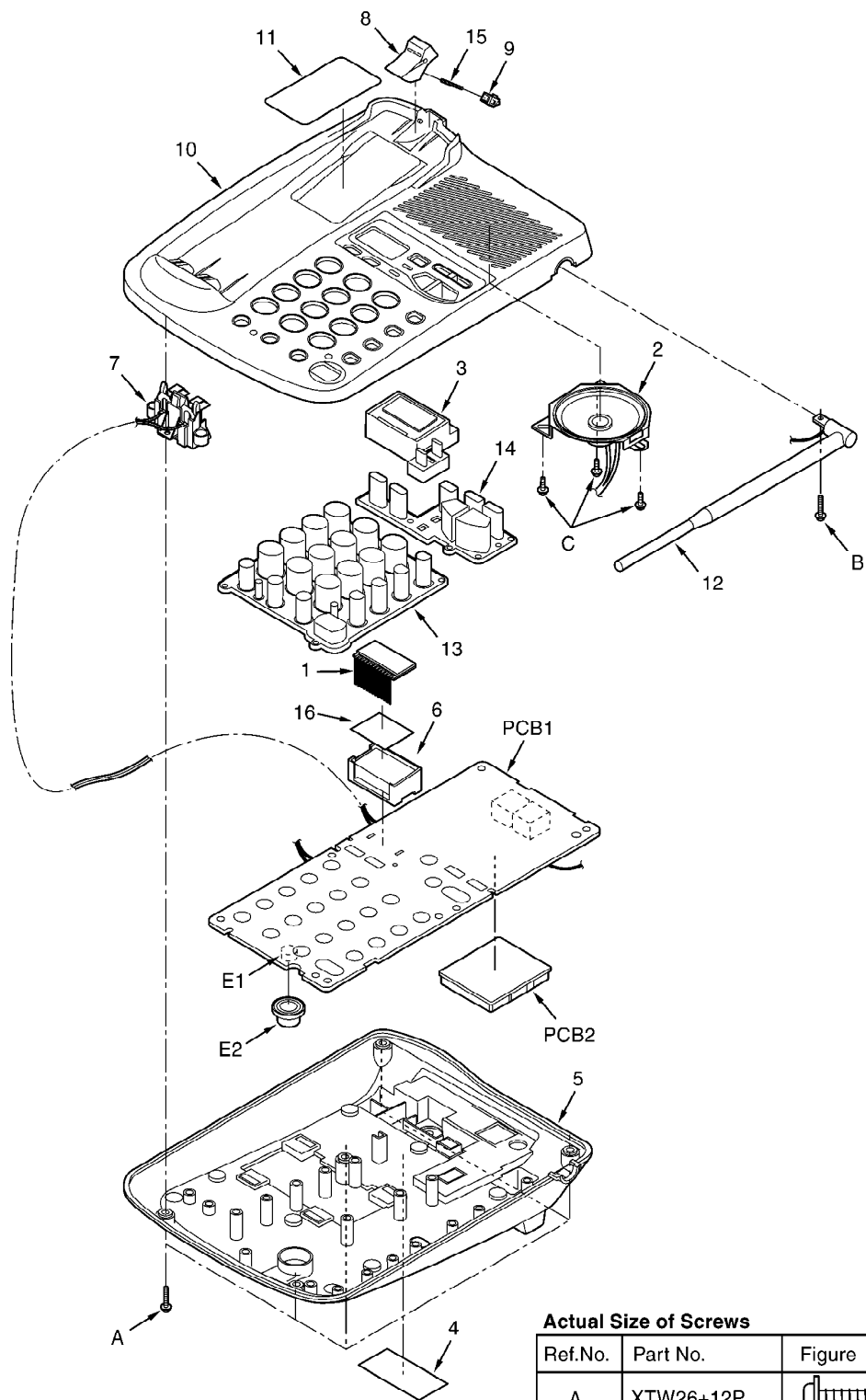


19.3. Modification Procedure of Bridge

1. Re-solder slightly on bridged portion.
2. Remove remained solder along pins employing soldering iron as shown in below figure.



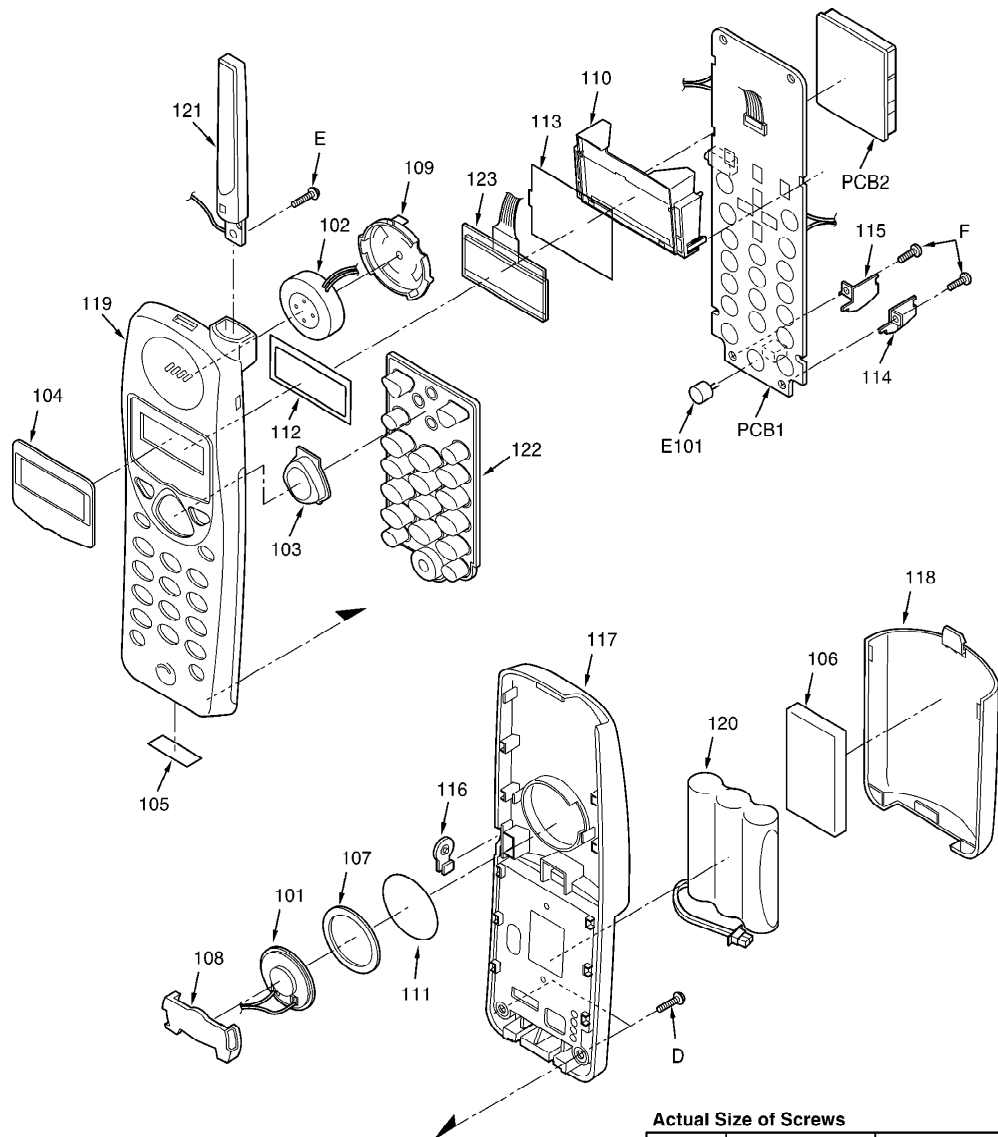
20. CABINET AND ELECTRICAL PARTS (Base Unit)



Actual Size of Screws

Ref.No.	Part No.	Figure
A	XTW26+12P	
B	XTW26+12P	
C	XTW3+S8P	

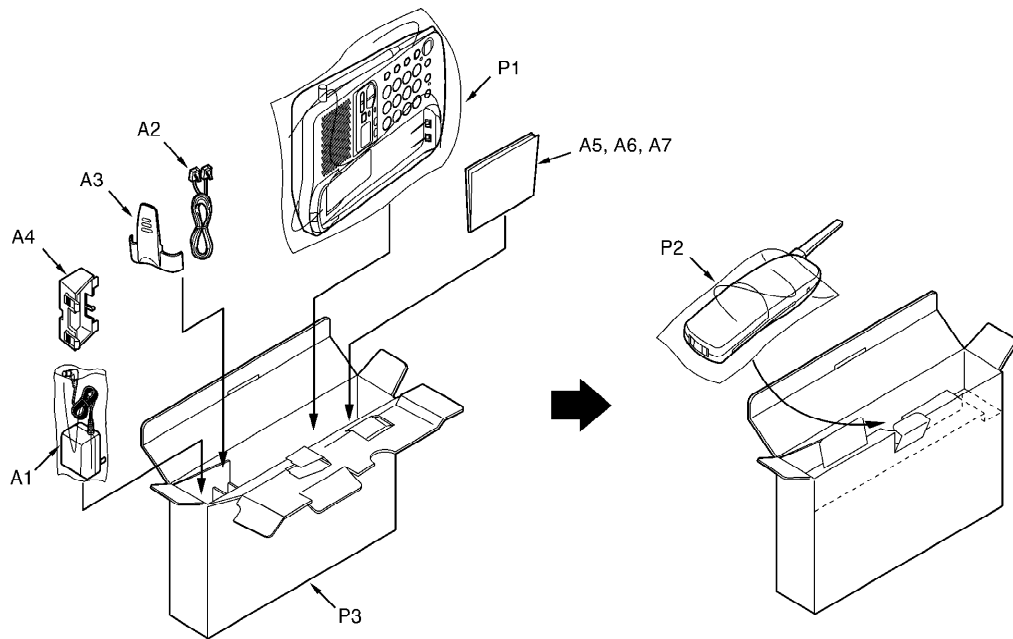
21. CABINET AND ELECTRICAL PARTS (Handset)



Actual Size of Screws

Ref.No.	Part No.	Figure
D	XTW26+12P	
E	XTW26+12P	
F	XTW26+10J	

22. ACCESSORIES AND PACKING MATERIALS

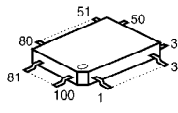
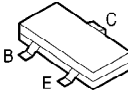









23. TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

23.1. Base Unit

 Cathode Anode PQVDRLZ2R0 PQVDRLZ20A	 81 100 1 51 50 31 30 C2HBBG000011	 E C B 2SD1994A	 E C B 2SD1758Q	 B E C UN5213 2SD1819A C0EBE0000142
 E C B 2SC2120 2SA1625 PQVT2N6517CA	 E C B 2SD2136	 E C B PQVDS1ZB60F1	 Cathode Anode MA111 MA8039 MA8068M PQVDHRU0302A	
 44 35 32 23 22 10 13 1 PQWITC1743BH	 C0CBABD00013	 PQVIPS3432UT	 Cathode Anode PQVDBR1111C PQVDSML310MT	

23.2. Handset

 C2HBBG000014	 2SD1819A PQVTDTC143E PQVDTA143TU		 MA111 MA8100M MA2ZD1400	 Cathode Anode LNJ308G8JRA PQVDSML310MT
 PQWITC1743BR	 PQVIC62FP33M	 C0CBABD00011	 PQVDS1ZB60F1	 PQVIC61CN32N

24. REPLACEMENT PARTS LIST

This replacement parts list are U.S.A. version only.

Note:

1. RTL (Retention Time Limited)

The marking (RTL) indicates that the Retention Time is limited for this item.

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention.

After the end of this period, the assembly will no longer be available.

2. Important safety notice

Components identified by a \triangle mark special characteristics important for safety. When replacing any of these components, use only manufacture's specified parts.

3. The S mark indicates service standard parts and may differ from production parts.

4. RESISTORS & CAPACITORS

Unless otherwise specified;

All resistors are in ohms (Ω) K=1000 Ω , M=1000k Ω

All capacitors are in MICRO FARADS (μ F) P= μ μ F

*Type & Wattage of Resistor

Type

ERC:Solid	ERX:Metal Film	PQ4R:Carbon
ERD:Carbon	ERG:Metal Oxide	ERS:Fusible Resistor
PQRD:Carbon	ER0:Metal Film	ERF:Cement Resistor

Wattege

10,16:1/8W	14,25:1/4W	12:1/2W	1:1W	2:2W	3:3W
------------	------------	---------	------	------	------

*Type & Voltage of Capacitor

Type

ECFD:Semi-Conductor	ECCD,ECKD,ECBT,PQCBC: Ceramic
ECQS:Styrol	ECQE,ECQV,ECQG: Polyester
PQCUV:Chip	ECEA,ECSZ:Electlytic
ECQMS:Mica	ECQP:Polypropylene

Voltage

ECQ Type	ECQG ECQV Type	ECSZ Type	Others	
1H:50V	05:50V	0F:3.15V	0J :6.3V	1V :35V
2A:100V	1:100V	1A:10V	1A :10V	50,1H:50V
2E:250V	2:200V	1V:35V	1C :16V	1J :63V
2H:500V		0J:6.3V	1E,25:25V	2A :100V

24.1. Base Unit

24.1.1. CABINET AND ELECTRICAL PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
<u>1</u>	L5DCBCB00004	LIQUID CRYSTAL DISPLAY	
<u>2</u>	PQAS57P03Y	SPEAKER	
<u>3</u>	PQGP10182Z1	LCD PANEL	S
<u>4</u>	PQGT14531Z	NAME LABEL (for KX-TC1743B)	
4	PQGT14867Z	NAME LABEL (for KX-TC1743F)	
4	PQGT14869Z	NAME LABEL (for KX-TC1743G)	
4	PQGT14828Z	NAME LABEL (for KX-TC1743W)	
4	PQGT14865Z	NAME LABEL (for KX-TC1743PW)	
<u>5</u>	PQYF10196Z1	LOWER CABINET (for KX-TC1743B) (for KX-TC1743F) (for KX-TC1743G)	S
5	PQYF10196Z2	LOWER CABINET (for KX-TC1743W)	S
5	PQYF10196Z3	LOWER CABINET (for KX-TC1743PW)	S
<u>6</u>	PQHR10854Z	LCD HOLDER	
<u>7</u>	PQWE10022Z	CHARGE TERMINAL	
<u>8</u>	PQKE10131Z1	HOOK LEVER (for KX-TC1743B)	S
8	PQKE10131Z4	HOOK LEVER (for KX-TC1743F)	S
8	PQKE10131Z5	HOOK LEVER (for KX-TC1743G)	S
8	PQKE10131Z2	HOOK LEVER (for KX-TC1743W)	S
8	PQKE10131Z6	HOOK LEVER (for KX-TC1743PW)	S
<u>9</u>	PQKE10134Z1	HOOK KNOB (for KX-TC1743B) (for KX-TC1743F) (for KX-TC1743G)	S
9	PQKE10134Z2	HOOK KNOB (for KX-TC1743W) (for KX-TC1743PW)	S
<u>10</u>	PQKM10485Z1	UPPER CABINET(for KX-TC1743B)	S
10	PQKM10485X4	UPPER CABINET(for KX-TC1743F)	S
10	PQKM10485X5	UPPER CABINET(for KX-TC1743G)	S
10	PQKM10485Z2	UPPER CABINET(for KX-TC1743W)	S
10	PQKM10485X3	UPPER CABINET(for KX-TC1743PW)	S
<u>11</u>	PQQT22298Y	TAM LABEL	
<u>12</u>	PQSA10095Z	ANTENNA (for KX-TC1743B) (for KX-TC1743F) (for KX-TC1743G)	
12	PQSA10095Y	ANTENNA (for KX-TC1743W)	
12	PQSA10095X	ANTENNA (for KX-TC1743PW)	
<u>13</u>	PQSX10172Z	12 KEY RUBBER SWITCH (for KX-TC1743B)	
13	PQSX10172W	12 KEY RUBBER SWITCH (for KX-TC1743F) (for KX-TC1743G)	
13	PQSX10172Y	12 KEY RUBBER SWITCH (for KX-TC1743W)	
13	PQSX10172X	12 KEY RUBBER SWITCH (for KX-TC1743PW)	
<u>14</u>	PQSX10173Z	TAM KEY RUBBER SWITCH (for KX-TC1743B) (for KX-TC1743F) (for KX-TC1743G)	
Ref. No.	Part No.	Part Name & Description	Remarks
14	PQSX10173Y	TAM KEY RUBBER SWITCH (for KX-TC1743W)	
14	PQSX10173X	TAM KEY RUBBER SWITCH (for KX-TC1743PW)	
<u>15</u>	PQUS10285Z	HOOK SPRING	
<u>16</u>	PQHS10327Z	LCD TAPE	

24.1.2. MAIN P.C. BOARD PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
PCB1	PQWPTC1743BH	MAIN P.C.BAORD ASS'Y (RTL)	
		(ICS)	
IC100	C0CBABD00013	IC	
IC201	C2HBBG000011	IC	
IC300	PQWITC1743BH	IC	
IC331	PQVIPS3432UT	IC	S
IC332	C0EBE0000142	IC	
		(TRANSISTORS)	
Q1	2SC2120	TRANSISTOR(SI)	S
Q3	PQVT2N6517CA	TRANSISTOR(SI)	S
Q4	2SA1625	TRANSISTOR(SI)	S
Q5	UN5213	TRANSISTOR(SI)	S
Q6	2SD1819A	TRANSISTOR(SI)	
Q7	2SD1819A	TRANSISTOR(SI)	
Q50	2SD1819A	TRANSISTOR(SI)	
Q102	2SD1819A	TRANSISTOR(SI)	
Q104	2SD1758Q	TRANSISTOR(SI)	S
Q108	2SD2136	TRANSISTOR(SI)	
Q150	2SD1994A	TRANSISTOR(SI)	
Q151	2SD1819A	TRANSISTOR(SI)	
		(DIODES)	
D1	PQVDRLZ2R0	DIODE(SI)	S
D2	PQVDRLZ20A	DIODE(SI)	S
D3	MA111	DIODE(SI)	
D4	PQVDS1ZB60F1	DIODE(SI)	S
D101	PQVDHRU0302A	DIODE(SI)	S
D102	PQVDHRU0302A	DIODE(SI)	S
D103	MA8039	DIODE(SI)	
D105	PQVDHRU0302A	DIODE(SI)	S
D106	PQVDHRU0302A	DIODE(SI)	S
D107	MA8068M	DIODE(SI)	
D152	PQVDRLZ20A	DIODE(SI)	S
D153	PQVDRLZ20A	DIODE(SI)	S
D202	MA111	DIODE(SI)	
D203	MA111	DIODE(SI)	
		(LEDS)	
LED201	PQVDBR1111C	LED	S
LED202	PQVDSML310MT	LED	S
LED203	PQVDBR1111C	LED	S
LED204	PQVDBR1111C	LED	S
		(COILS)	
L1	PQLQXF330K	COIL	S
L2	PQLQXF330K	COIL	S
L150	PQLQZK3R3K	COIL	S
L151	PQLQXF330K	COIL	S
L200	PQLQR2KA213	COIL	S
L201	PQLQR4RB601D	COIL	
		(SUARGE ABSORBERS)	
SA1	PQVDDSS301L	SURGE ABSORBER	S
SA2	PQVDDSS301L	SURGE ABSORBER	S
		(OTHERS)	
CN1	PQJJ2H003Z	JACK SOCKET	S
E1	PQJM147Y	MICROPHONE	
E2	PQMG10023Z	CUSHION RUBBER, MIC	

Ref. No.	Part No.	Part Name & Description	Remarks
G401	PQJT10152Z	CHARGE TERMINAL	
G402	PQJT10152Z	CHARGE TEMRINAL	
G403	PQJT10152Z	CHARGE TERMINAL	
G404	PQJT10152Z	CHARGE TERMINAL	
G405	PQJT10152Z	CHARGE TERMINAL	
G406	PQJT10152Z	CHARGE TERMINAL	
POS1	PQRPAR390N	POSISTOR	S
RA200	EXRV8V104JV	RESISTOR ARRAY	S
X200	H0D409400014	CRYSTAL OSCILLATOR	
		(RESISTORS)	
R1	ERJ3GEYJ122	1.2k	
R2	ERJ3GEYJ681	680	
R3	ERJ3GEYJ470	47	
R5	ERDS1TJ330	33	S
R7	ERJ3GEYJ393	39k	
R8	ERJ3GEY0R00	0	
R10	ERJ3GEYJ102	1k	
R13	ERJ3GEYJ473	47k	
R14	ERJ3GEYJ394	390k	
R15	ERJ3GEYJ394	390k	
R17	ERJ3GEYJ473	47k	
R18	ERJ3GEYJ103	10k	
R19	ERJ3GEYJ563	56k	
R20	ERD25TJ104	100k	S
R21	ERJ3GEYJ103	10k	
R23	ERDS1VJ106	10M	
R24	ERJ3GEYJ335	3.3M	
R25	ERJ3GEYJ155	1.5M	
R26	ERJ3GEYJ472	4.7k	
R29	ERJ3GEYJ472	4.7k	
R30	ERJ3GEYJ104	100k	
R31	ERJ3GEYJ104	100k	
R50	ERJ3GEYJ102	1k	
R51	ERJ3GEYJ470	47	
R52	ERJ3GEYJ394	390k	
R55	ERJ3GEYJ102	1k	
R57	ERJ3GEY0R00	0	
R70	ERJ3GEYJ392	3.9k	
R102	ERJ3GEYJ224	220k	
R104	ERJ3GEYJ473	47k	
R105	ERJ3GEYJ103	10k	
R107	ERJ3GEYJ331	330	
R109	ERJ3GEYJ683	68k	
R112	ERJ3GEYJ273	27k	
R114	ERDS1TJ181	180	S
R116	ERJ3GEY0R00	0	
R117	ERJ3GEY0R00	0	
R118	ERJ3GEYJ102	1k	
R150	ERJ3GEYJ104	100k	
R151	ERJ3GEYJ561	560	
R152	ERJ3GEYJ331	330	
R153	ERDS1TJ100	10	S
R157	ERDS1TJ391	390	S
R159	ERJ3GEYJ103	10k	

Ref. No.	Part No.	Part Name & Description	Remarks
R160	ERJ3GEYJ563	56k	
R161	ERJ3GEYJ563	56k	
R200	ERJ3GEYJ101	100	
R201	ERJ3GEYJ101	100	
R203	ERJ3GEYJ473	47k	
R204	ERJ3GEYJ391	390	
R205	ERJ3GEYJ391	390	
R206	ERJ3GEYJ181	180	
R207	ERJ3GEYJ561	560	
R212	ERJ3GEYJ102	1k	
R213	ERJ3GEYJ102	1k	
R214	ERJ3GEYJ102	1k	
R215	ERJ3GEYJ222	2.2k	
R216	ERJ3GEYJ222	2.2k	
R217	ERJ3GEYJ394	390k	
R218	ERJ3GEYJ123	12k	
R219	ERJ3GEYJ103	10k	
R222	ERJ3GEYJ333	33k	
R223	ERJ3GEYJ222	2.2k	
R224	ERJ3GEYJ394	390k	
R225	ERJ3GEYJ102	1k	
R227	ERJ3GEYJ222	2.2k	
R230	ERJ3GEY0R00	0	
R231	ERJ3GEY0R00	0	
R232	ERJ3GEY0R00	0	
R233	ERJ3GEY0R00	0	
R234	ERJ3GEY0R00	0	
R251	ERJ3GEYJ102	1k	
R252	ERJ3GEYJ102	1k	
R300	ERJ3GEYJ104	100k	
R301	ERJ3GEYJ103	10k	
R400	ERJ3GEYJ332	3.3k	
R900	ERJ3GEYJ472	4.7k	
R901	ERJ3GEYJ472	4.7k	
R909	ERJ3GEYJ101	100	
R910	ERJ3GEYJ472	4.7k	
R911	ERJ3GEYJ472	4.7k	
R912	ERJ3GEYJ472	4.7k	
C57	ERJ3GEY0R00	0	
C61	ERJ3GEY0R00	0	
J201	ERJ3GEYJ472	4.7k	
J202	ERJ3GEY0R00	0	
		(CAPACITORS)	
C1	ECEA1CKA100	10	
C3	ECUV1C473KBV	0.047	
C4	ECUV1H101JCV	100P	
C6	ECUV1H103KBV	0.01	
C8	ECEA1HKA010	1	
C9	ECUV1H103KBV	0.01	S
C11	ECUV1H681JCV	680P	S
C12	ECUV1H681JCV	680P	S
C14	ECUV1H103KBV	0.01	
C15	PQCUV1A684KB	0.68	
C16	PQCUV1H154KR	0.15	

Ref. No.	Part No.	Part Name & Description	Remarks
C17	PQCUV1H154KR	0.15	
C18	ECKD2H681KB	680P	S
C19	ECKD2H681KB	680P	S
C50	ECUV1C104KBV	0.1	
C55	ECUV1H102KBV	0.001	S
C58	ECUV1C104KBV	0.1	
C70	ECEV0JA220	22	
C100	ECUV1C104ZFV	0.1	
C101	ECEV0JA101	100	
C103	ECEA0JU102	1000	
C105	PQCUV1C334KB	0.33	
C106	ECUV1C104ZFV	0.1	
C107	ECEV0JA220	22	
C108	ECEV0JA101	100	
C109	ECUV1H103KBV	0.01	S
C110	ECUV1C104ZFV	0.1	
C112	ECEA1AKA101	100	
C114	ECEA1CKS220	22	S
C150	ECUV1C104ZFV	0.1	
C200	ECUV1C104ZFV	0.1	
C201	ECUV1H681JCV	680P	S
C207	ECUV1C104ZFV	0.1	
C213	ECUV1C104ZFV	0.1	
C227	ECUV1H180JCV	18P	
C228	ECUV1H180JCV	18P	
C230	ECST0JY106	10	
C231	ECUV1C104ZFV	0.1	
C234	ECUV1H103KBV	0.01	S
C235	ECUV1H103KBV	0.01	
C236	ECUV1H103KBV	0.01	
C237	ECST0JY106	10	
C238	ECUV1H103KBV	0.01	S
C239	ECEA0JU331	330	
C241	ECUV1C104ZFV	0.1	
C242	ECUV1H272KBV	0.0027	
C244	ECUV1C104KBV	0.1	
C245	ECUV1H121JCV	120P	
C250	ECUV1C104KBV	0.1	
C251	ECUV1C104ZFV	0.1	
C252	ECUV1C104ZFV	0.1	
C300	ECUV1H101JCV	100P	
C301	ECUV1H101JCV	100P	
C302	ECUV1H101JCV	100P	
C303	ECUV1H101JCV	100P	
C304	ECUV1H101JCV	100P	
C305	ECUV1H101JCV	100P	
C306	ECUV1H101JCV	100P	
C307	ECUV1H101JCV	100P	
C308	ECUV1C104ZFV	0.1	
C309	ECUV1C104ZFV	0.1	
C310	ECUV1H101JCV	100P	
C311	ECUV1H101JCV	100P	
C312	ECUV1H101JCV	100P	
C313	ECUV1H101JCV	100P	

Ref. No.	Part No.	Part Name & Description	Remarks
C315	ECUV1H101JCV	100P	
C401	ECUV1H103KBV	0.01	S
C403	ECUV1H330JCV	33P	
C404	ECUV1H101JCV	100P	
C405	ECUV1H101JCV	100P	
C406	ECUV1H101JCV	100P	
C407	ECUV1H101JCV	100P	
C408	ECUV1H101JCV	100P	
C409	ECUV1H030CCV	3P	
C410	ECUV1H101JCV	100P	
C411	ECUV1H101JCV	100P	
C412	ECUV1H101JCV	100P	
C413	ECUV1C104KBV	0.1	
C415	ECEV0JA220	22	
C450	ECEV0JA101	100	
C453	ECUV1H030CCV	3P	
C723	ECUV1C563KBV	0.056	

24.1.3. RF P.C.BOARD PART

Ref. No.	Part No.	Part Name & Description	Remarks
PCB2	PQLP10246Z	RF BLOCK	

24.2. Handset

24.2.1. CABINET AND ELECTRICAL PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
101	PQAS3P07Y	SPEAKER	
102	PQAX3P27Z	RECEIVER	
103	PQBC10337Z1	NAVIKEY BUTTON (for KX-TC1743B) (for KX-TC1743W)	S
103	PQBC10337Y3	NAVIKEY BUTTON (for KX-TC1743F) (for KX-TC1743G) (for KX-TC1743PW)	S
104	PQGP10183Z1	LCD PANEL (for KX-TC1743B)	S
104	PQGP10183Z3	LCD PANEL (for KX-TC1743F)	S
104	PQGP10183Z4	LCD PANEL (for KX-TC1743G)	S
104	PQGP10183Z2	LCD PANEL (for KX-TC1743W) (for KX-TC1743PW)	S
105	PQGT14532Z	NAME LABEL (for KX-TC1743B)	
105	PQGT14868Z	NAME LABEL (for KX-TC1743F)	
105	PQGT14870Z	NAME LABEL (for KX-TC1743G)	
105	PQGT14827Z	NAME LABEL (for KX-TC1743W)	
105	PQGT14866Z	NAME LABEL (for KX-TC1743PW)	
106	PQHE10121Z	CUSHION, URETHANE FORM	
107	PQHG10589Y	SP RUBBER SHEET	
108	PQHR10778Z	SP HOLDER	
109	PQHR10855Z	SP HOLDER	
110	PQHR10856Z	LCD HOLDER	
111	PQHS10457Z	SP NET	
112	PQHS10470Z	CUSHION LCD	
113	PQHX11005Z	LCD SHEET	
114	PQJT10176Z	CHARGE TERMINAL (L)	
115	PQJT10177Z	CHARGE TERMINAL (R)	
116	PQKE10132Z1	EARPHONE CAP	S

Ref. No.	Part No.	Part Name & Description	Remarks
117	PQKF10521Z1	REAR CABINET (for KX-TC1743B)	S
117	PQKF10521Y4	REAR CABINET (for KX-TC1743F)	S
117	PQKF10521Y5	REAR CABINET (for KX-TC1743G)	S
117	PQKF10521Z2	REAR CABINET (for KX-TC1743W)	S
117	PQKF10521Y3	REAR CABINET (for KX-TC1743PW)	S
118	PQKK10121Z1	BATTERY COVER (for KX-TC1743B)	S
118	PQKK10121Y4	BATTERY COVER (for KX-TC1743F)	S
118	PQKK10121Y5	BATTERY COVER (for KX-TC1743G)	S
118	PQKK10121Z2	BATTERY COVER (for KX-TC1743W)	S
118	PQKK10121Y3	BATTERY COVER (for KX-TC1743PW)	S
119	PQKM10493Z1	FRONT CABINET (for KX-TC1743B)	S
119	PQKM10493X4	FRONT CABINET (for KX-TC1743F)	S
119	PQKM10493X5	FRONT CABINET (for KX-TC1743G)	S
119	PQKM10493Z2	FRONT CABINET (for KX-TC1743P)	S
119	PQKM10493X3	FRONT CABINET (for KX-TC1743PW)	S
120	PQP504SVC	BATTERY	S
121	PQSA10102X	ANTENNA (for KX-TC1743B) (for KX-TC1743F) (for KX-TC1743G)	S
121	PQSA10102W	ANTENNA (for KX-TC1743W)	S
121	PQSA10102V	ANTENNA (for KX-TC1743PW)	S
122	PQSX10174Z	KEY RUBBER SWITCH (for KX-TC1743B)	
122	PQSX10174T	KEY RUBBER SWITCH (for KX-TC1743F) (for KX-TC1743G)	
122	PQSX10174X	KEY RUBBER SWITCH (for KX-TC1743W)	
122	PQSX10174V	KEY RUBBER SWITCH (for KX-TC1743PW)	
123	LN153C01	LIQUID CRYSTAL DISPLAY	

24.2.2. MAIN P.C. BOARD PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
PCB100	PQWPTC1743BR	MAIN P.C.BAORD ASS'Y (RTL)	
		(ICS)	
IC201	C2HBBG000014	IC	
IC202	PQWITC1743BR	IC	
IC203	C0CBABD00011	IC	
IC204	PQVIC62FP33M	IC	S
IC205	PQVIC61CN32N	IC	S
		(TRANSISTORS)	
Q201	PQVTDTC143E	TRANSISTOR(SI)	S
Q202	PQVTDTC143E	TRANSISTOR(SI)	S
Q203	PQVTDTA143TU	TRANSISTOR(SI)	
Q205	2SD1819A	TRANSISTOR(SI)	
Q206	PQVTDTC143E	TRANSISTOR(SI)	S
Q207	2SD1819A	TRANSISTOR(SI)	
Q211	PQVTDTA143TU	TRANSISTOR(SI)	
		(DIODES)	
D201	MA2ZD1400	DIODE(SI)	
D203	MA111	DIODE(SI)	
D206	PQVDS1ZB60F1	DIODE(SI)	
D211	MA8100M	DIODE(SI)	
D214	MA111	DIODE(SI)	
D215	MA2ZD1400	DIODE(SI)	
D216	MA111	DIODE(SI)	
		(LEDS)	
LED201	PQVDSML310MT	LED	S

Ref. No.	Part No.	Part Name & Description	Remarks
LED202	PQVDSML310MT	LED	S
LED203	PQVDSML310MT	LED	S
LED204	PQVDSML310MT	LED	S
LED205	LNJ308G8JRA	LED	
LED206	LNJ308G8JRA	LED	
LED207	LNJ308G8JRA	LED	
		(COILS)	
L201	MQLRE15NJF	COIL	
L203	PQLQR3FL121	COIL	S
L211	PQLQR4RB601D	COIL	
L212	PQLQR4RB601D	COIL	
		(CONNECTORS)	
CN201	PQJS22A12Z	FFC CONNECTOR	S
CN202	PQJP2D13Z	CONNECTOR PIN	S
CN203	PQJJ1J007Z	EAR JACK	S
		(OTHERS)	
E101	PQJM147Y	MICROPHONE	
G1	PQJT10152Z	CHARGE TERMINAL	
G2	PQJT10152Z	CHARGE TERMINAL	
G3	PQJT10152Z	CHARGE TERMINAL	
G4	PQJT10152Z	CHARGE TERMINAL	
G5	PQJT10152Z	CHARGE TERMINAL	
G6	PQJT10152Z	CHARGE TERMINAL	
X201	HOJ409400006	CRYSTAL OSCILLATOR	
		(RESISTORS)	
R201	ERJ3GEYJ331	330	
R202	ERJ3GEYJ331	330	
R203	ERJ3GEYJ331	330	
R204	ERJ3GEYJ331	330	
R205	ERJ3GEYJ271	270	
R206	ERJ3GEYJ271	270	
R207	ERJ3GEYJ271	270	
R209	ERJ3GEYJ102	1k	
R210	ERJ3GEYJ103	10k	
R211	ERJ3GEYJ103	10k	
R212	ERJ3GEYJ101	100	
R213	ERJ3GEYJ101	100	
R217	ERJ3GEYF434	430k	S
R218	ERJ3GEYF824	820k	S
R222	ERJ3GEYJ101	100	
R224	ERJ3GEYJ103	10k	
R225	ERJ3GEYJ472	4.7k	
R228	ERJ3GEYJ224	220k	
R229	ERJ3GEYJ102	1k	
R230	ERJ3GEYJ102	1k	
R231	ERJ3GEYJ102	1k	
R232	ERJ3GEYJ103	10k	
R233	ERJ3GEY0R00	0	
R234	ERJ3GEYJ225	2.2M	
R235	ERJ3GEYJ225	2.2M	
R236	ERJ3GEYJ473	47k	
R241	ERJ3GEY0R00	0	
R244	ERJ3GEYJ473	47k	
R245	ERJ3GEYJ103	10k	


Ref. No.	Part No.	Part Name & Description	Remarks
R246	ERJ3GEYJ153	15k	
R247	ERJ3GEYJ391	390	
R248	ERJ3GEYJ393	39k	
R249	ERJ3GEYJ222	2.2k	
R250	ERJ3GEYJ222	2.2k	
R253	ERJ3GEYJ222	2.2k	
R260	ERJ3GEYJ103	10k	
R265	ERJ3GEYJ103	10k	
R270	ERJ3GEYJ104	100k	
R271	ERJ3GEYJ104	100k	
R272	ERJ3GEYJ104	100k	
R300	ERJ3GEYJ104	100k	
R301	ERJ3GEY0R00	0	
R302	ERJ3GEYJ180	18	
R303	ERJ3GEYJ180	18	
C257	PQ4R18XJ000	0	S
C301	ERJ3GEY0R00	0	
L209	PQ4R10XJ000	0	S
		(CAPACITORS)	
C203	ECUV1C104ZFV	0.1	
C205	ECUV1H101JCV	100P	
C206	ECUV1C104KBV	0.1	
C207	ECUV1C104KBV	0.1	
C208	ECUV1C104KBV	0.1	
C209	ECUV1C104KBV	0.1	
C210	ECUV1C104KBV	0.1	
C211	ECUV1A474KBV	0.47	
C212	ECUV1A474KBV	0.47	
C213	ECEV0JA101	100	
C214	ECUV1C104ZFV	0.1	
C215	ECUV1A474KBV	0.47	
C217	ECUV1C104ZFV	0.1	
C218	ECUV1C104ZFV	0.1	
C220	ECEV0JA101	100	
C221	ECUV1C104ZFV	0.1	
C222	ECUV1C104ZFV	0.1	
C223	ECST0JY106	10	
C224	ECUV1C104ZFV	0.1	
C225	ECUV1C104ZFV	0.1	
C226	ECUV1C104ZFV	0.1	
C227	ECUV1C104ZFV	0.1	
C228	ECUV1C104ZFV	0.1	
C229	ECUV1A105ZFV	1	
C230	ECUV1E333KBV	0.033	
C231	ECUV1A224KBV	0.22	
C232	ECUV1E333KBV	0.033	
C233	ECUV1A105ZFV	1	
C234	ECUV1A224KBV	0.22	
C236	ECUV1H150JCV	15P	
C237	ECUV1H150JCV	15P	
C239	ECUV1C104ZFV	0.1	
C242	ECUV1C104ZFV	0.1	
C255	ECUV1A224KBV	0.22	
C262	ECUV1A105ZFV	1	

Ref. No.	Part No.	Part Name & Description	Remarks
C267	ECST0JX226	22	
C270	ECST0JY475	4.7	
C274	ECUV1C104ZFB	0.1	
C277	ECUV1C563KBV	0.056	
C279	ECUV1H010CCV	1P	
C280	ECUV1C104ZFB	0.1	
C282	ECUV1C104ZFB	0.1	
C285	ECUV1C105ZF	1	
C291	ECUV1C104ZFB	0.1	
C294	ECUV1C104ZFB	0.1	
C303	ECST0JY106	10	
C304	ECUV1C104ZFB	0.1	
C305	ECUV1H030CCV	3P	

24.2.3. RF P.C.BOARD PART

Ref. No.	Part No.	Part Name & Description	Remarks
PCB200	PQLP10246Z	RF BLOCK	

24.2.4. ACCESSORIES AND PACKING MATERIALS

Ref. No.	Part No.	Part Name & Description	Remarks
A1	KX-TCA1-G	AC ADAPTOR	 S
A2	PQJA10075Z	TEL CORD	
A3	PQKE10130Z1	BELT CLIP (for KX-TC1743B)	S
A3	PQKE10130Z4	BELT CLIP (for KX-TC1743F)	S
A3	PQKE10130Z5	BELT CLIP (for KX-TC1743G)	S
A3	PQKE10130Z2	BELT CLIP (for KX-TC1743W)	S
A3	PQKE10130Z3	BELT CLIP (for KX-TC1743PW)	S
A4	PQKL10035Z1	WALL MOUNT ADAPTOR (for KX-TC1743B) (for KX-TC1743F) (for KX-TC1743G)	S
A4	PQKL10035Z2	WALL MOUNT ADAPTOR (for KX-TC1743W) (for KX-TC1743PW)	S
A5	PQQW12441Z	QUICK GUIDE (for English)	
A6	PQQW12442Z	QUICK GUIDE (for Spanish)	
A7	PQQX13054Z	INSTRUCTION BOOK (for KX-TC1743B) (for KX-TC1743W)	
A7	PQQX13054Y	INSTRUCTION BOOK (for KX-TC1743F) (for KX-TC1743G) (for KX-TC1743PW)	
P1	PQPP170Y	PROTECTION COVER (for Base Unit)	
P2	XZB10X35A02	PROTECTION COVER (for Handset)	
P3	PQPK13405Z	CARTON BOX (for KX-TC1743B)	
P3	PQPK13511Z	CARTON BOX (for KX-TC1743F)	
P3	PQPK13512Z	CARTON BOX (for KX-TC1743G)	
P3	PQPK13495Z	CARTON BOX (for KX-TC1743W)	
P3	PQPK13510Z	CARTON BOX (for KX-TC1743PW)	

25. FOR SCHEMATIC DIAGRAM

25.1. Base Unit (SCHEMATIC DIAGRAM (Base Unit))

Notes:

1. DC voltage measurements are taken with voltmeter from the

negative voltage line.

Important Safety Notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified parts.

This schematic diagram may be modified at any time with the development of new technology.

25.2. Handset (SCHEMATIC DIAGRAM (Handset))

Notes:

1. DC voltage measurements are taken with an oscilloscope or a tester with a ground.
2. The schematic diagrams and circuit board may be modified at any time with the development of new technology.

25.3. Memo

26. SCHEMATIC DIAGRAM (RF Unit)

27. SCHEMATIC DIAGRAM (Base Unit)

28. SCHEMATIC DIAGRAM (Handset)

29. CIRCUIT BOARD (RF Unit)

30. CIRCUIT BOARD (Base Unit)

30.1. Component View

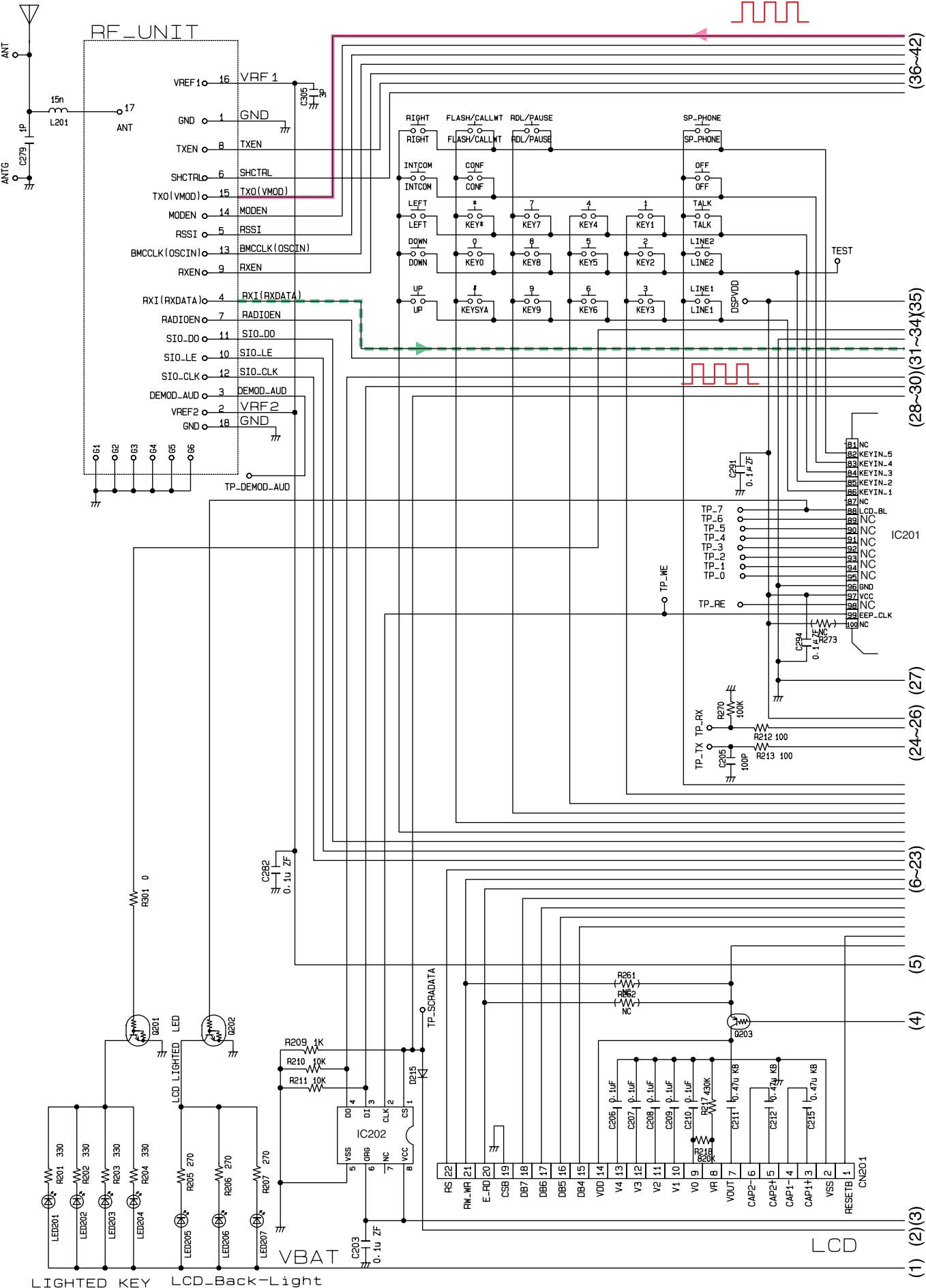
30.2. Flow Solder Side View

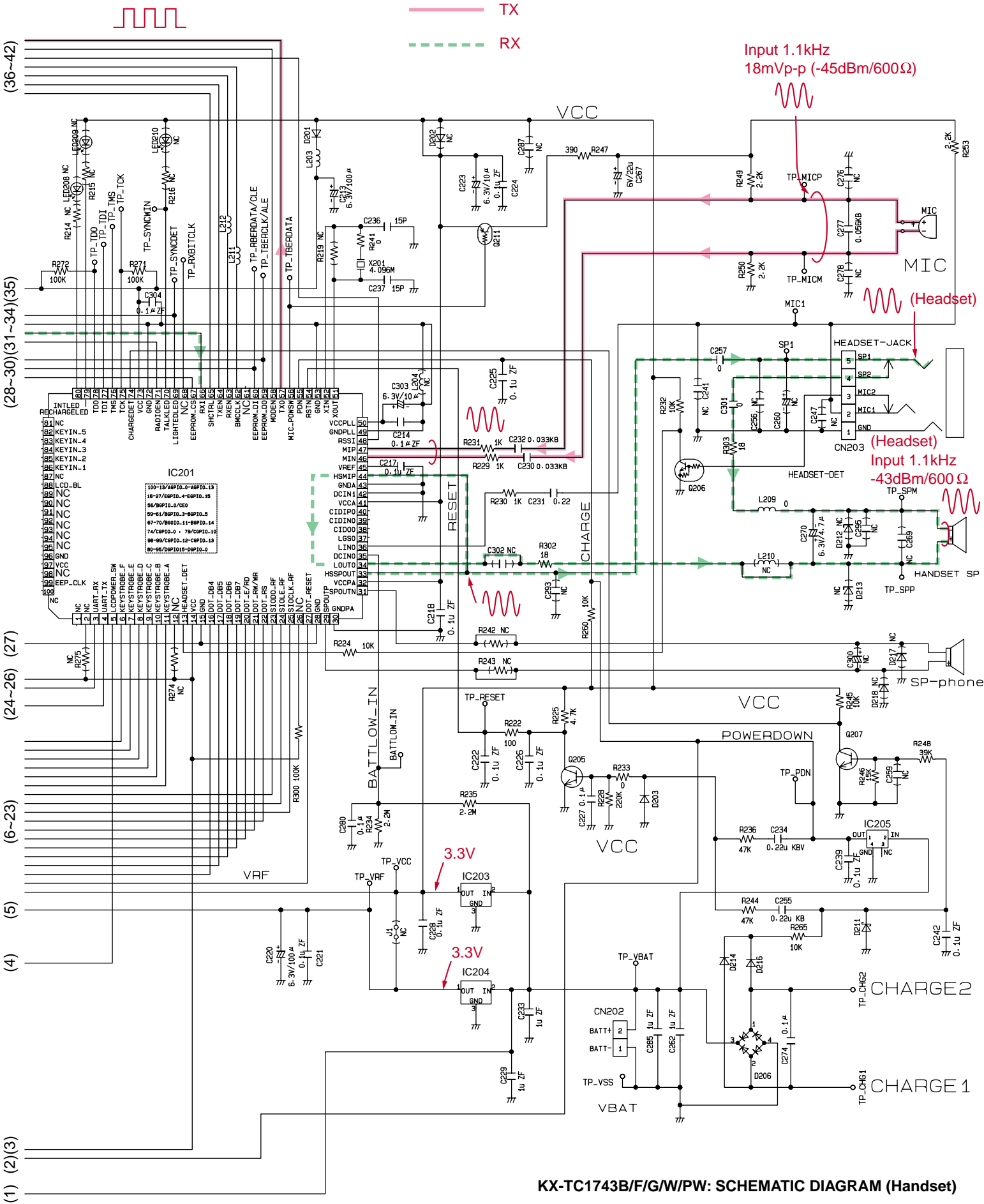
31. CIRCUIT BOARD (Handset)

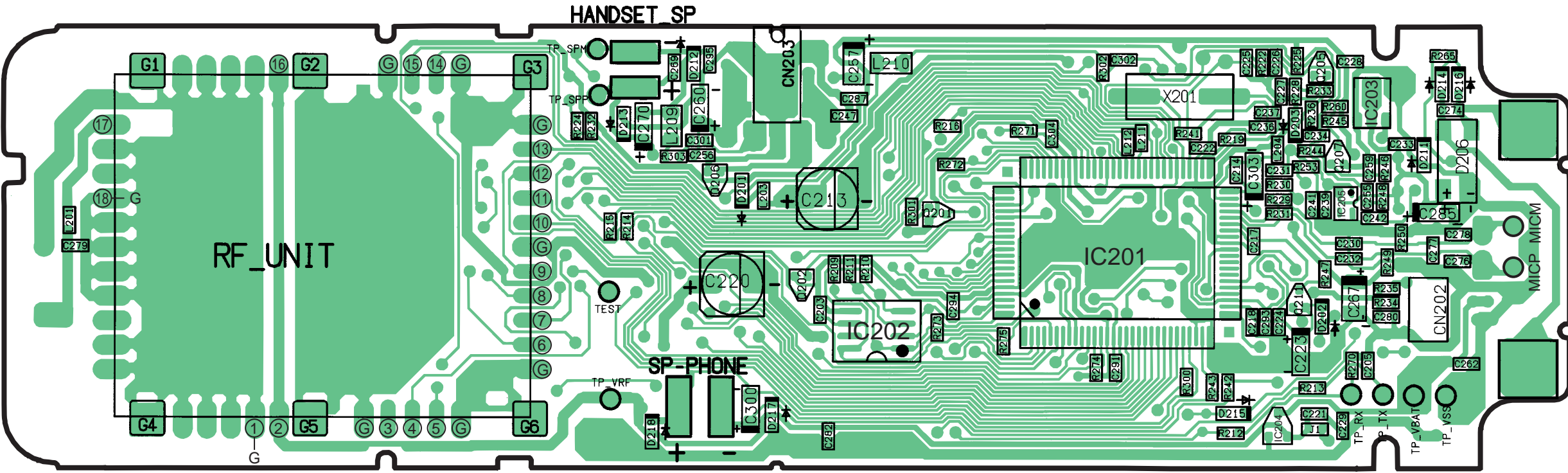
31.1. Component View

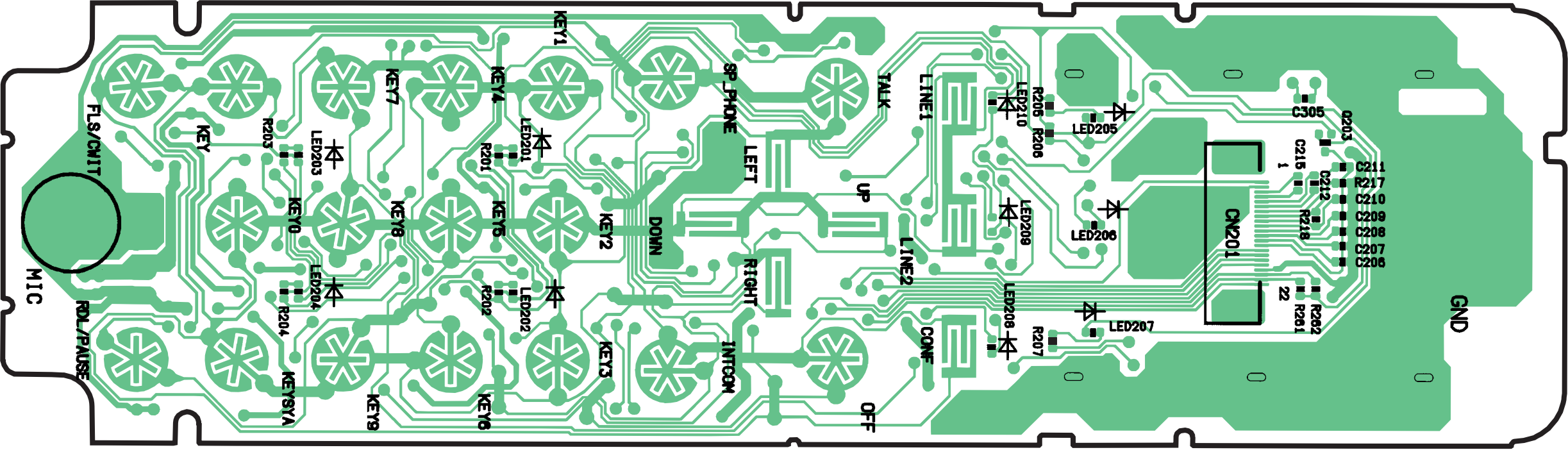
31.2. Flow Solder Side View

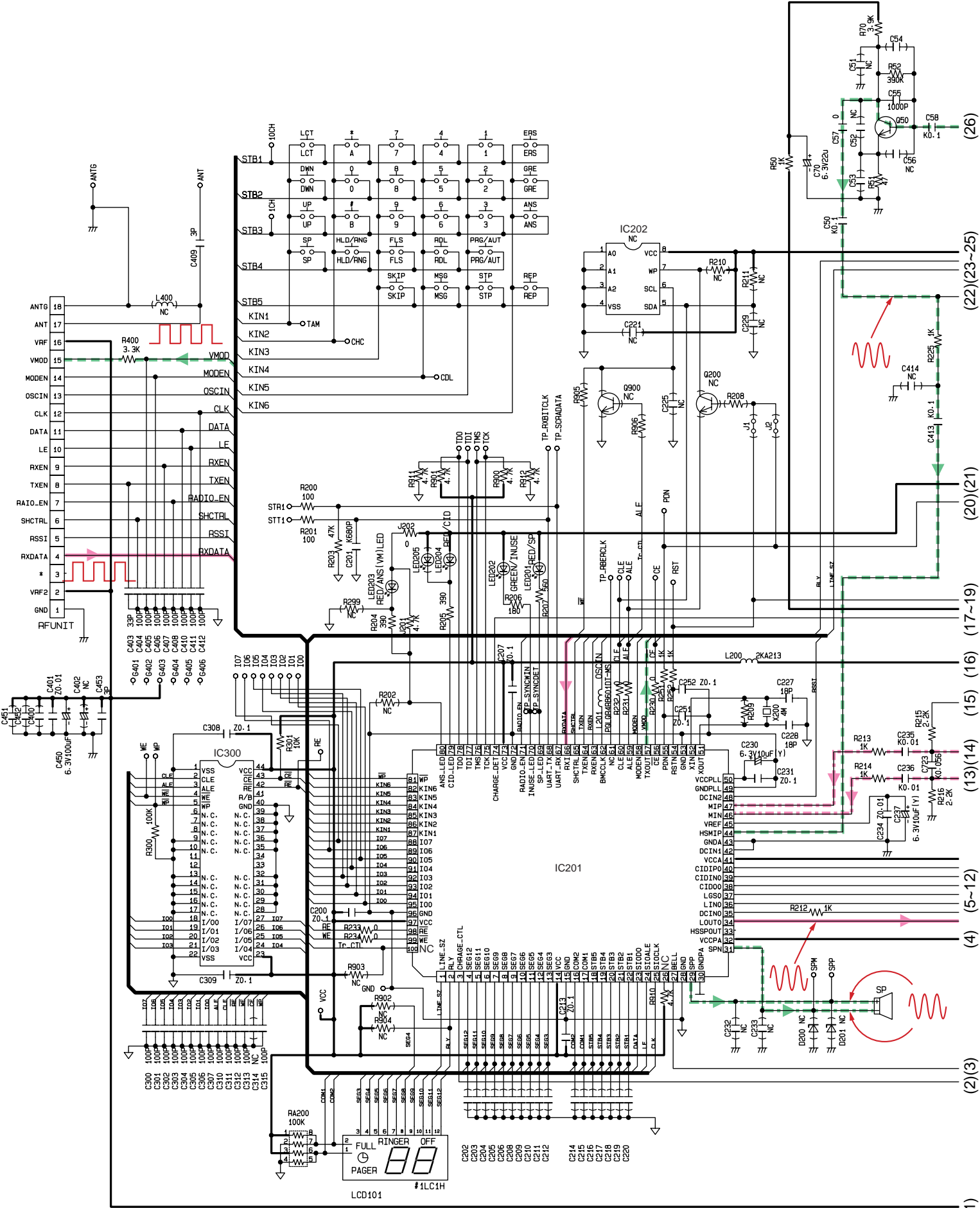
**M / KXTC1743B / KXTC1743F / KXTC1743G / KXTC1743W /
KXTC1743PW / Printed in Japan**

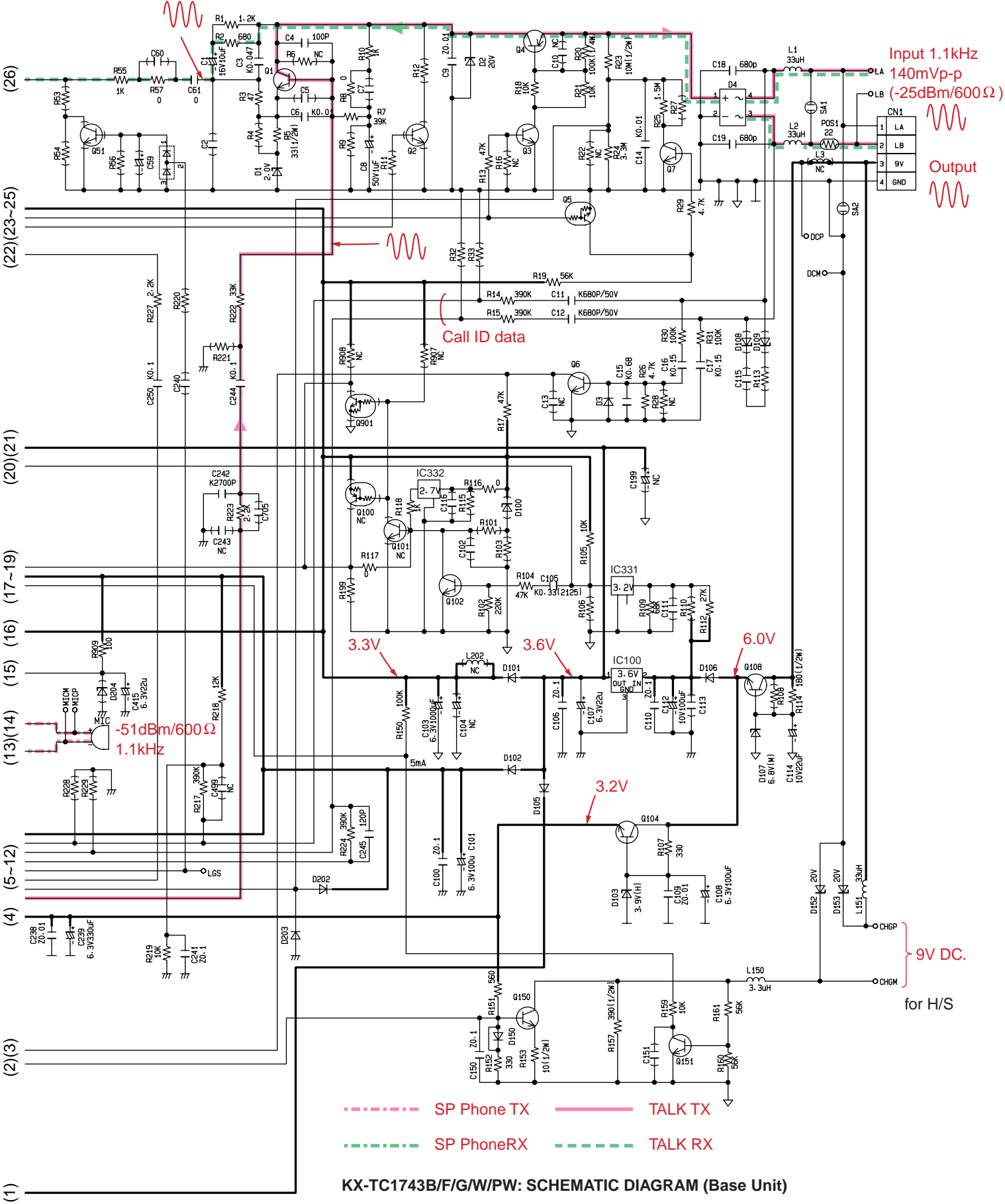


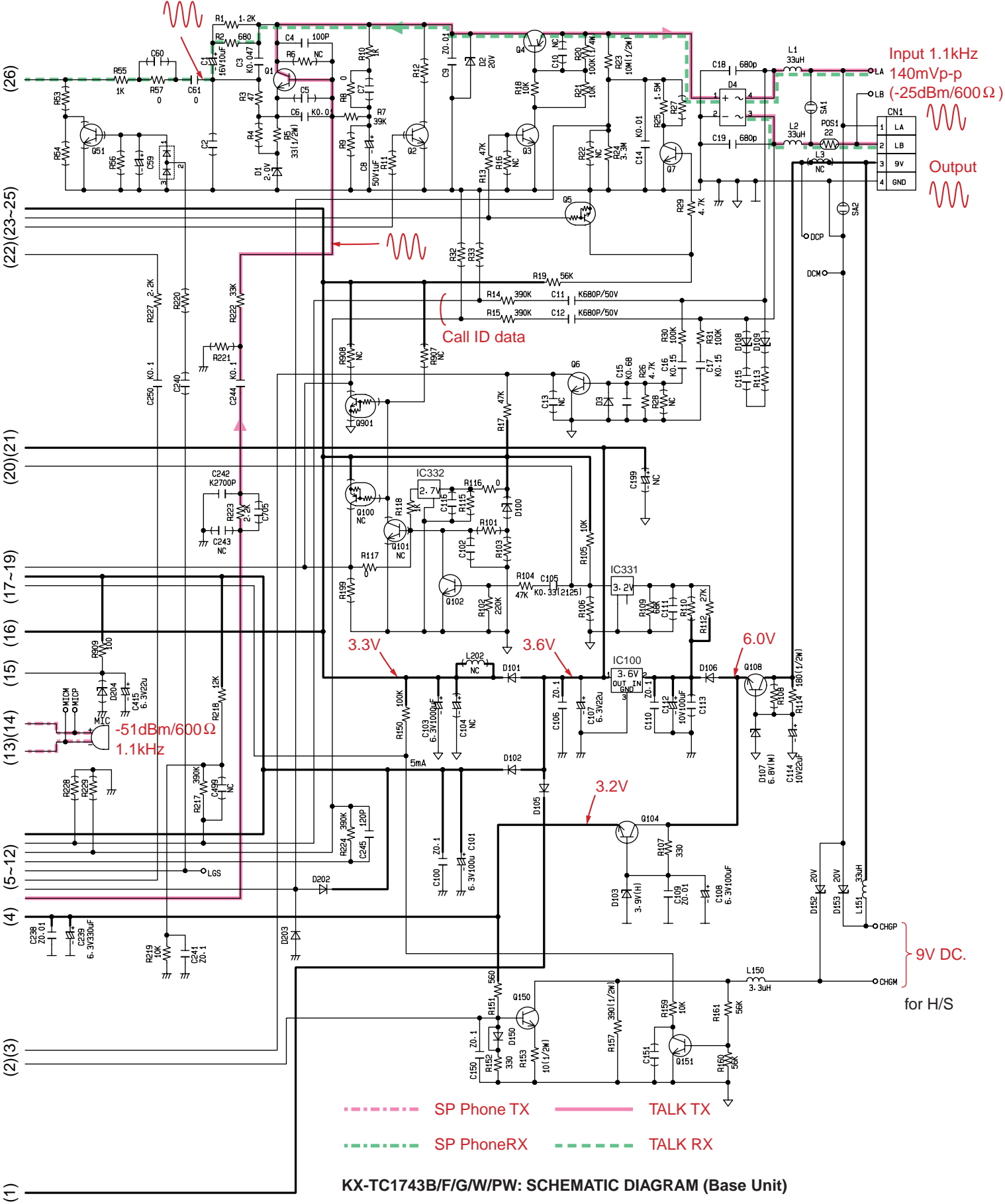




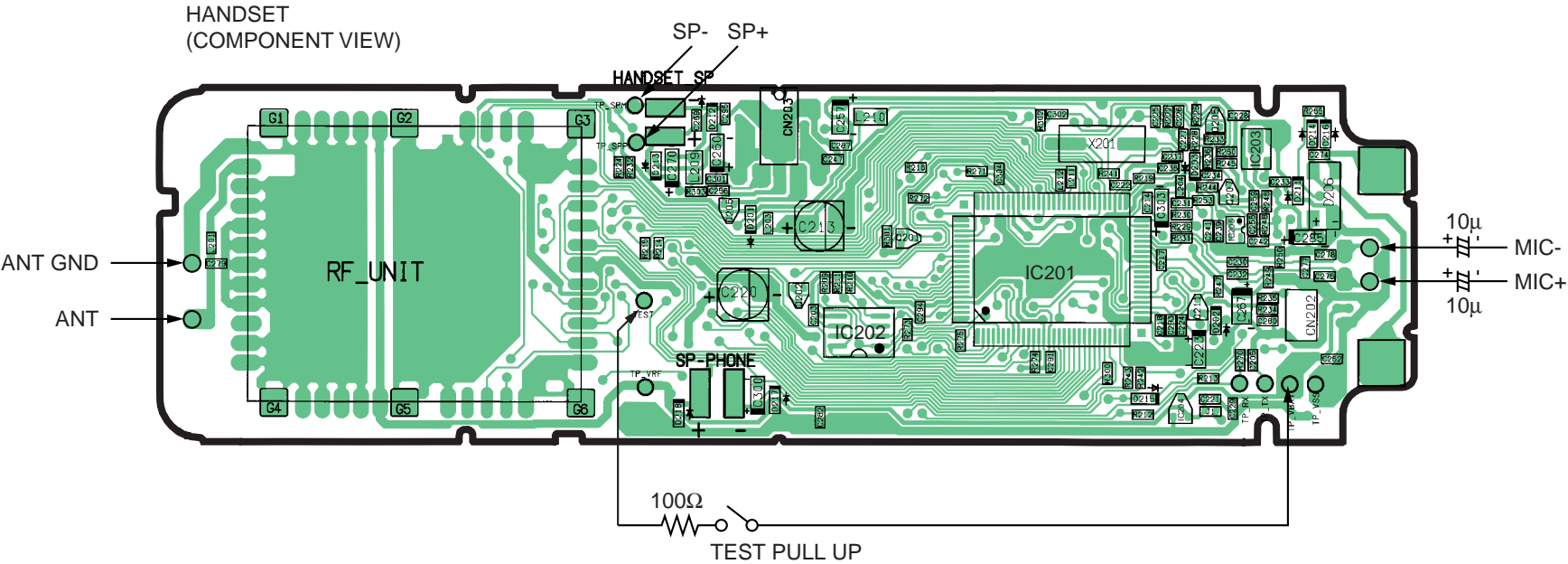




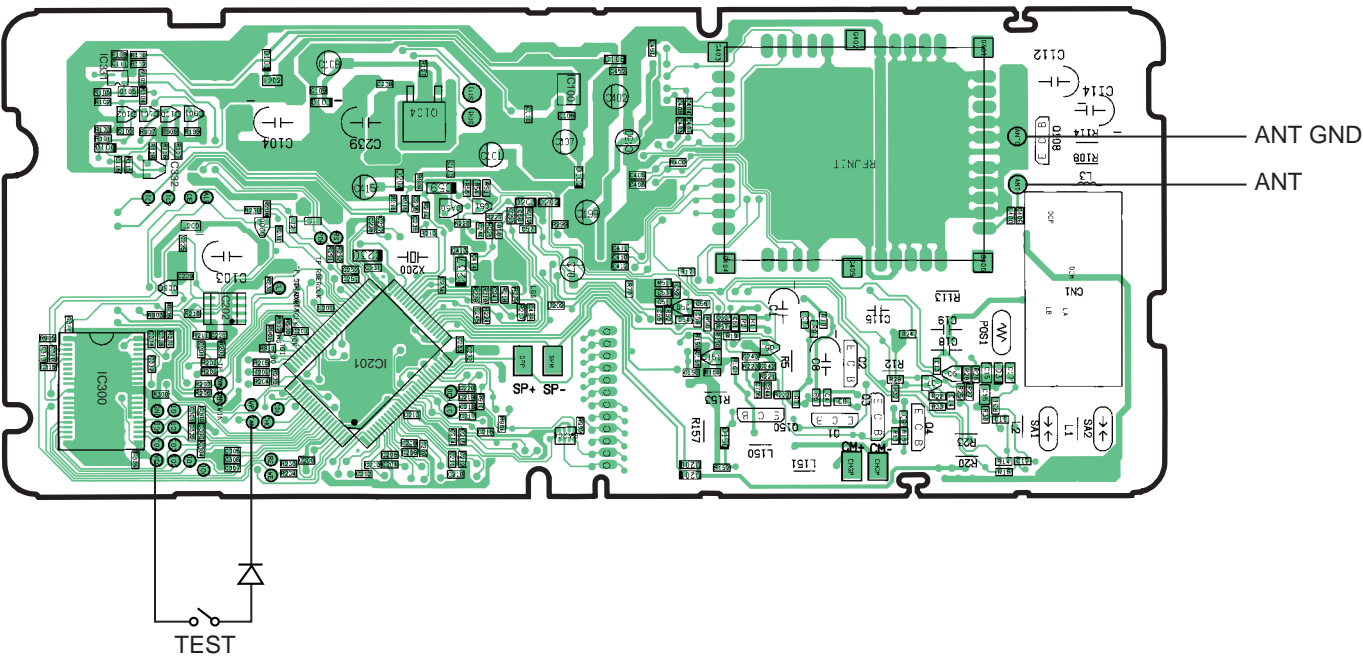




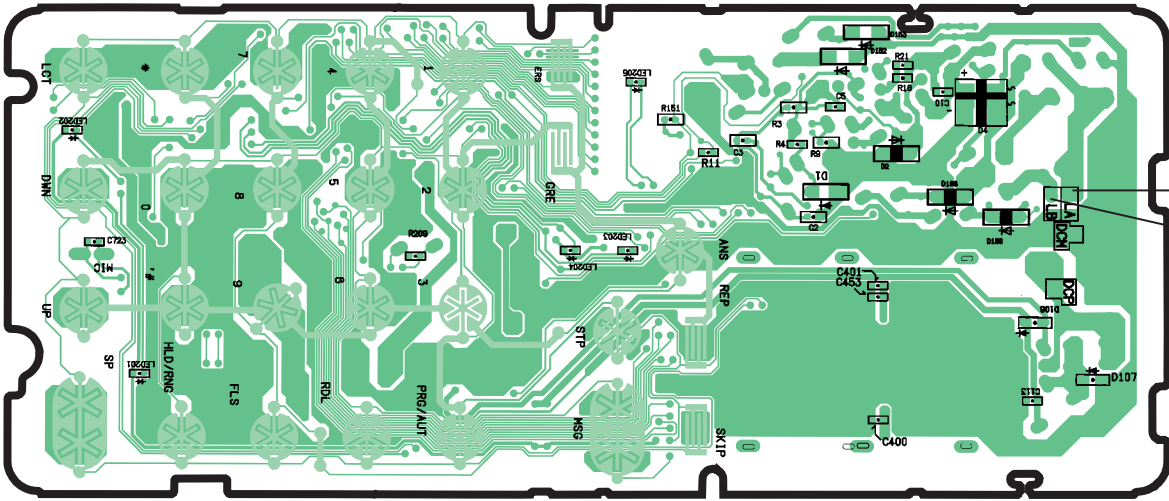
HANDSET
(COMPONENT VIEW)



(COMPONENT VIEW)



(FLOW SOLDER SIDE VIEW)



Line A

Line B

